THE BRICKBVILDER

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THE BRICKBUILDER.

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ADVERTISING.

Advertisers are classified and arranged in the following order: —

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Agencies. — Clay Products	II	Cements	IV
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" Terra-Cotta	II and III	Fire-proofing	IV
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" Enameled	III and IV	Roofing Tile	IV

Advertisements will be printed on cover pages only.

CHANGE IN OUR PLATE FORMS.

A NEW ruling has been made by the Post Office Department at Washington which bears directly upon architectural publications, inasmuch as by this ruling loose sheets, or plates as they are usually designated by publishers, must be bound in with the rest of the magazine in order that it may be mailed as second-class matter.

We are not disposed to discuss the wisdom of this ruling for the simple reason that it would be ineffective in bringing about a change; what the law directs we are bound to obey. The only serious difference which the change may make — and possibly it may be proven that after all it will not be serious — is in the matter of double plates, that is, one illustration extending across the fold of the sheet, and where this is done the stitching will oftentimes have to be made through the illustration. We are of the opinion, however, that many architects who file their plates object to the double plate illustration and will therefore be glad if they can be done away with altogether. However this may be, the probabilities are that the double-page plates will as a result of this law be reduced to a minimum.

To those who file their plates it will be an easy matter to lift them for the purpose from the binding, and in doing so the plates will not be damaged in the least. The binding in has manifestly one advantage, and that is that plates will be kept in their proper places in the magazine until they are lifted for filing or other purposes.

This new law — or rather this new interpretation of an old law — will work no great hardship, as there will undoubtedly be ways devised which will adequately meet the needs.

THE BRICKBUILDER COMPETITIONS.

THERE are some features connected with the conducting of our competitions with which, apparently, contestants are not acquainted. As publishers we furnish the programme, cash prizes, and select the members of the Jury of Award. After that we are simply custodians of the drawings submitted. The remaining part of our work consists in the careful handling of the drawings while in our possession, arranging for the judging, publishing of the jury's report and such drawings as they may select for the purpose, and the returning of the drawings to their owners.

Some few of those who have entered our competitions apparently feel that this whole work can be done within a week's time, and to those especially we wish to explain that it would be impossible to do so for the following reasons: there are usually a large number of drawings entered in these competitions, and the proper arrangement of them, that they may be handled easily by the judges, requires some little time. Then the selection of the judges, as will be recognized, is one of the greatest importance and it is purposely left until the drawings are in for the very reason that we desire to have the problem treated, and not the judges. The men who are invited to do this work are of the leaders in the architectural profession, men whose interests are large and whose time is valuable, and to arrange a date on which three or five such men can meet is no easy matter, but the delay is more than compensated for in the value of the services which they give when the work is finally undertaken.

During all this time, of course, the contestant is not certain that his drawing has been received, nor do we see how it can be otherwise, because of the very fact that the sealed envelopes containing the names of the contestants are not opened until after the competition has been judged. Following this there is absolutely no delay in notifying the interested parties of the results.

This explanation is not offered by way of apology, but rather as an explanation to those who seem to misunderstand the conditions which must of necessity prevail.

Office Building Competition.

THE SUCCESSFUL COMPETITORS.


MR. RAYMOND M. HOOD.


MR. J. W. THOMAS, JR.

RAYMOND M. HOOD, who was awarded the first prize of $500, received his early education at the Pawtucket (R. I.) High School, and then entered Brown University, where he spent one year.

He entered the Massachusetts Institute of Technology in the fall of 1899, graduating from the Architectural Course with honor in the class of 1903.

After graduation he spent about one year in the employ of Cram, Goodhue & Ferguson, architects, in their Boston and New York offices.

In the summer of 1904 he went abroad to further pursue his studies, and at present is a member of the School of Beaux Arts in Paris, being admitted in April, 1905. He has also spent considerable time in European travel and has studied for a period in the American Academy at Rome.


MR. WILLIAM C. HAZLETT.


MR. JOHN H. PHILLIPS.

WILLIAM C. HAZLETT, who was awarded the second prize of $200, was graduated as civil engineer from Lehigh University, after which he spent some time in travel and study. His early training was in the offices of the late Bruce Price and McKim, Mead & White of New York City, since which time he has practised independently in that city.

CLAUDE BRAGDON, who was awarded the third prize of $100, received his architectural education in various offices, among others those of Green & Wicks of Buffalo, and the late Bruce Price of New York City. For the past fourteen years he has practised architecture in Rochester, N. Y.

JOHN H. PHILLIPS, who was awarded a mention, took the Civil Engineering Course at the University of Wisconsin. After graduation he was connected with the offices of Shepley, Rutan & Coolidge, S. S. Beman and Richard E. Schmidt, all of Chicago. In 1902 he won the Chicago Architectural Club Scholarship. At present he is connected with the office of Reed & Stem, architects, New York City.

J. W. THOMAS, JR., who was awarded a mention, received his architectural education at the University of Pennsylvania. He is at present in the office of an architect at Columbus, Ohio.

ROLAND E. BORHEK received his architectural training in various offices. At present he is in the Seattle (Wash.) branch office of A. Warren Gould of Boston.

Mentions were also given, by the Jury of Award, to Oscar Wenderoth of Washington, D. C., Edward F. Maher of Boston, and Israel P. Lord of Somerville, Mass. Sketches of these men were not received in time to be included in this issue.


MR. CLAUDE F. BRAGDON.

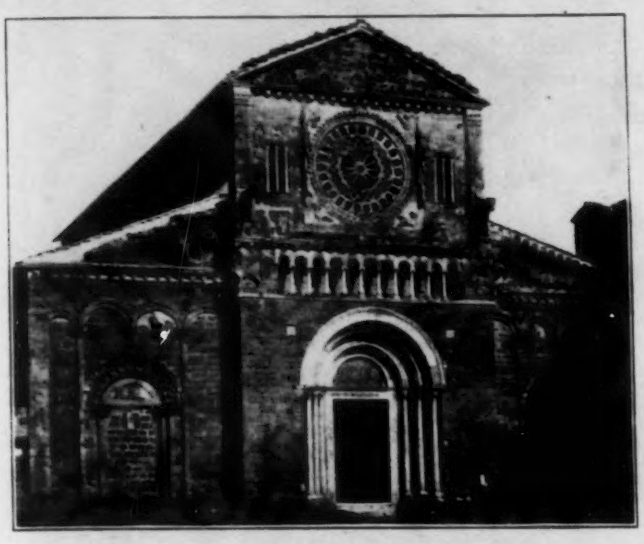

MR. ROLAND BORHEK.

Catholic Church Architecture.

BY CHARLES D. MAGINNIS.

PAPER I.

It may be conceded at once that, in view of the splendor of opportunity presented by its great building activity, the Catholic Church has so far contributed insignificantly to the art of the United States. Just why this opportunity has availed so little, however, is a consideration always passed over by the critic, who invariably writes on this subject in a mood either of testy impatience or of profound discouragement. To my mind, no present estimate of the artistic asset of the church in this country can possibly indicate the measure of its ultimate influence upon the national art. The hope may indeed seem visionary that, with modern methods of art production, the church will again inspire an artistic manifestation approaching the Gothic tradition in beauty of thought or in sublimity of power. So indissoluble is the art element from Catholic life and thought, however, that the promise of big artistic possibilities must amply appear in the very vitality of the church itself. The history of our own times presents no more interesting phenomenon than the rejuvenation of the Catholic Church under democratic government. Sharply isolated from political institutions which were supposed to be necessary to its spiritual control, it has grown in the free play of its energies, not merely in numbers and power, but in sheer moral prestige, so as to be admittedly the most potent spiritual influence in American life. Indeed, signs are not wanting that it is to the splendid conservatism of this great moral authority that we must look to maintain the Christian ideal of society against the growing forces of materialism. It is not to be wondered at if, in the development of this real potentiality, involving as it did the solution of many great problems incident to the organization of a new and strangely constituted society, the energies of the church became too engrossed for the responsibilities of a discriminating art patronage.



SAN PIETRO, TOSCANELLA.

A ninth century façade of great beauty and refinement, which might well have influenced American church design. Admirably adapted to brick and terra cotta.

In the mean time art was asserting itself as an important element in the national life quite independently of religious stimulus. So amazing indeed has been the development of this secular art within the last twenty years that the historic supremacy of Europe has finally been called into question in more than one department. The high standards now prevailing in our civic and domestic architecture, however, afford the most pertinent evidence of the remarkable elevation in national taste. That the Catholic Church will come into more sympathetic touch with this beautiful development is inevitable, as the conditions which have made for its detachment become gradually relaxed. As it is, I feel sure that many of the clergy do not realize the degree of this detachment, nor how far the old artistic prestige of the church has been compromised by a system of art production which its preoccupation and the hasty development of its boundaries were well calculated to foster. I refer to a system which owes its origin to Munich, a name which (great as it is in artistic association), in my judgment, symbolizes, therefore, most of the unfavorable influences which have retarded the healthy growth of Catholic art in America. Munich is the pernicious principle of Art in the control of Commerce. It is the multitude of foreign and domestic plaster shops for turning out stereotyped saints by the thousands, it is the " combination " of western factory interests which is flooding the country with hideous altars and pews and confessional boxes, it is the so-called architect who makes merchandise of his plans, scattering them over the land in defiance of all the determining principles of site, tradition, climates, local resource and natural environment. Munich is the smart man with the catalogue.

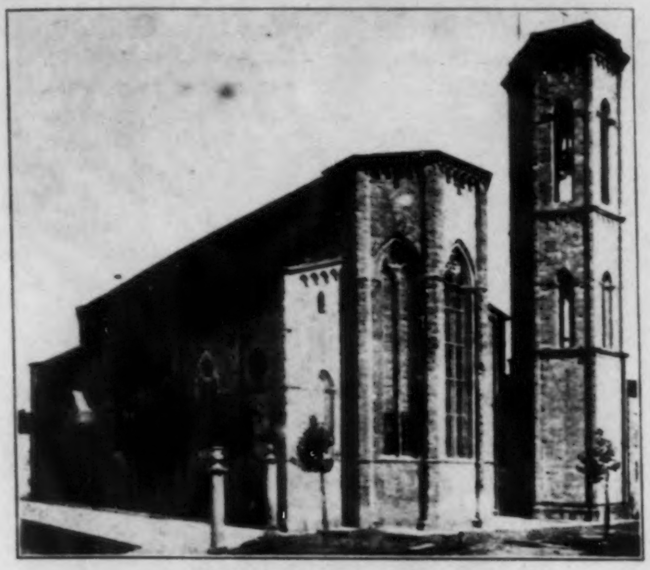
CHURCH OF S. MARIA DELLE GRAZIE, MILAN.

Illustrating the possibilities of brick in application to monumental design. The church is attributed to Bramante, but the great dome only justifies the attribution

That the high artistic reputation of the German city should be thus prejudiced by the localization of so unhealthy a system is unfortunate. Munich has many splendid artists and admirable schools of art. To suppose, however, that the best sentiment of Munich is in sympathy with mimeographic art production, or that the powers of its best artists are enlisted in it, is absurd. This is sufficiently apparent in the circumstance that, in

order to remove the odium of it from the church, the Catholic Archbishop of Munich himself was forced a few years ago to issue a public letter protesting vehemently against this spurious and mechanical Christian art, and warning his clergy to give it no countenance or support whatever.

If art in the control of the counting room is degenerate at Munich, what hope is there for the principle in a land where the commercial struggle is so keen that the fairest and most sequestered landscape is not sacred from the impudent insistence on the excellence of Sapolio or the efficacy of Little Liver Pills? Everyday experience proves that it makes not merely for low artistic standards, but for degrading methods. And yet, under a perfunctory patronage, this principle has extended tremendously to the detriment of Catholic art in this country. We must not hope for higher standards until a greater deliberation is exercised in the determination of the sources of true art production, for under present conditions art is not to be had merely by paying for it. There is certainly no lack to-day in this country of accomplished architects and sculptors and decorative artists, men who are eager to give their best service to the cause of ecclesiastical art. If it be not easy, except for those of keen artistic perceptions, to dissociate these from the mass, a little investigation will easily reveal them; and no personal or parochial consideration ought to be permitted to weigh in favor of him whose capacity does not survive a reasonable test. It often happens that the incapable architect is a very decent sort of a fellow, who causes considerable flow of the milk of human kindness, but the folly of employing him to design a church can be demonstrated by arithmetic. Suppose $50,000 to have been appropriated for the erection of a parish church capable of seating one thousand people. A fifth of that sum will suffice to build a comfortable weather-proof structure of the requisite capacity and equip it with all physical essentials for congregational worship. Four-fifths, therefore, of the appropriation is intended to secure an expression of architectural dignity in keeping with the solemn destination of the building. Even an ignorant architect or an ordinary mechanic may intelligently guide the expenditure of one-fifth of the appropriation, but, since he cannot reach an artistic issue, $40,000 must be wasted under his hands, — a big sum of money to go for nothing. It was spent for art, and art is not the result, but something which is not to be argued into a resemblance to it by any degree of parochial approval. Architecture has its standards quite as well marked as those of literature, even if they be equally obscure to the general public. It may be, only five men in fifty have artistic discrimination, but is there a much bigger proportion who have literary judgments? Of the rest there are many who would yield no superiority to Ruskin over the local reporter. Yet literature is still worth while.



THE CATHEDRAL, AREZZO.

This is an excellent example of the logical manner in which the Italians modified the Gothic to suit the requirements of brick and terra cotta. The beauty of the apse is specially notable, the aisles lacking character through the smallness and irregularity of the windows. The tower is poor and badly related

So vital a point, indeed, is the selection of the architect that upon it turns really the whole question. Since the services of the good architect usually cost no more than those of the bad one, it seems clear that only two considerations should be brought to bear on a particular candidacy: first, the professional capacity of the man; second, his personal integrity. The best test of his capacity is the judgment of his own profession. How is he regarded by those who are eminent in it? Are his accomplishments acknowledged? If not, no weight whatever should be given to the circumstance that he has already designed many churches. They are presumably bad. Any man who has designed ten churches without receiving the commendation of so liberal a profession must be presumed to have done his share in discrediting

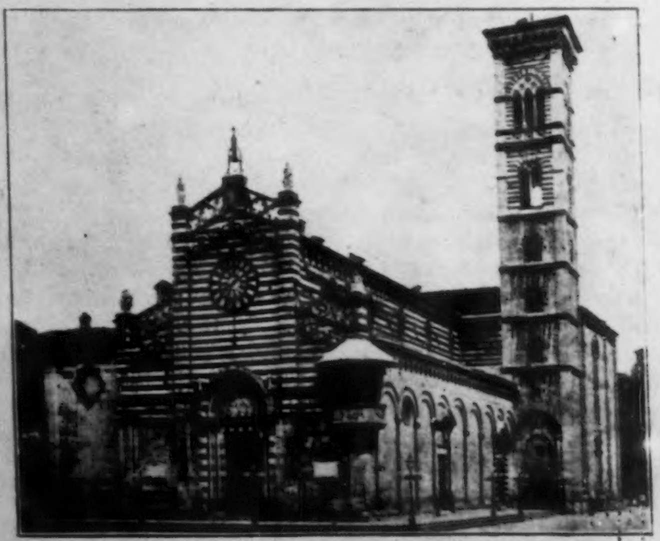
INTERIOR OF CATHEDRAL, AREZZO.

Catholic architecture, and should be passed over. The personal honor of the candidate may be considered reasonably established if, like the respectable lawyer, he can claim membership in the professional society which regulates the ethics of practice. In the face of Monsignor Lavalle's testimony, however, it ought to be still further attested by the experience of his previous clients. The architect once selected, his service ought to be permitted to extend, in the interest of artistic congruity, to the selection of every detail, including not merely the altars and the furniture, but the mural and window decoration. These matters are as much the legitimate concern of the architect as the structure itself. A bad decorator may easily ruin the effect of a fine interior, and even a very good one, if he happen to have no particular sympathy with the architecture, may contrive to give it an entirely wrong expression.

CHURCH OF SAN PIETRO SOMALDI, LUCCA.

This is one of many stately Italian types which, while not literally adaptable, is full of beautiful suggestion for American churches. The position of the tower was determined by immediate conditions; otherwise it were better placed, as at Prato.

Some of the clerical contributors have touched upon the economic condition of the architect's problem. It is, indeed, a very vital matter, since the amount of money available in a given case may not only determine the degree and character of its elaboration, but may control the entire organism and style of the building. It is customary to speak of a limited building fund as a stultifying condition, as if it must necessarily make for inferior architecture, as if there existed some essential affinity between the artistic value of a work and the intrinsic cost of the materials of which it is made. As a matter of fact the element of cost has no relation whatever to artistic beauty. Very often cut granite and polished marbles serve only to emphasize the inherent ugliness of bad design. Such is the alchemy of art that an unpretentious brick church, with the mark of gifted hands upon it, may have more artistic value than the cathedral. The economic condition, therefore, is not only not essentially prejudicial, but if it encouraged, as it ought to encourage, a simpler and more thoughtful kind of building, its influence would be, on the contrary, decidedly healthy. Let us not blame our poverty for our bad architecture, but the tasteless men who made that poverty ridiculous. Are we not sick and tired of the illiterate misrepresentation by which our sacrifice is made to strive by a system of architectural shams after more merit than it really has? Is it not a monstrous libel upon the splendid spirit of Catholic giving to thus mistranslate it into an expression of smirking hypocrisy designed to impress the neighbors? Of the grosser violations of the ethical principle in architectural beauty (such as the use of imitation marbles) it should be unnecessary to speak in an article on the designing of churches. Such insincerities, even if they may be assumed to gratify an untutored popular taste, have a very pernicious significance in association with the house of God. Who is confident enough to say that there is no insidious mischief done to the faith of the worshiper in that shock of disillusioment with which he perceives on the walls of the church the lie which is designed to deceive him? But the real nature of architecture is violated most commonly in the unintelligent effort to achieve beauty that has no structural authority. Architectural illusions may, of course, be created out of cardboard with historic outlines and good proportion of parts, but architecture must have organism as well as form, and the form and the organism must be so intimately wedded that one is the felicitous expression of the other. And yet, out of this scenic point of view, we constantly see flimsy materials used to simulate the rich externals of enduring masonry. Buildings profess to be of stone on the flimsy title of a veneer on the aisle walls, leaving the insincerity of the profession to be demon-



THE CATHEDRAL, PRATO.

A building of extremely graceful lines. The tower, which is admirably proportioned, is also splendidly placed to give the right accent to the composition. It is amazing that such a building as this, so well adapted to the materials with which we usually deal, should have proved so uninspiring to Catholic architecture in America.

strated by the wooden clearstory and the copper pinnacles. Gothic churches are still constructed of wood with meaningless pointed arches, their proud buttresses built of pine boards,—a triumph of the tenpenny nail. In the interior, lath and plaster, besides fulfilling their legitimate function of wall-covering, are persuaded into historic forms for which their properties utterly unfit them. Rarely is there any expression of vitality. The beautiful open-timber roofs, which so frankly confess their office and may be made so beautiful, are hardly ever employed. We find the nobility of masonry exemplified in the New York Cathedral, where it imparts such an effect of muscular energy, of living, sentient architecture, but where else? St. Patrick's in lath and plaster would be ridiculous and unworthy to be classed as a great church. It is quite possible to bring something of the spirit of St. Patrick's into our parish churches, and until we do there can be no real health in our architecture. Above all, no Gothic should be attempted without the means to create such an effect of structural vitality.

CHURCH OF SAINTS ANDREA AND BERNARDINO, PERUGIA.

A classical composition of much dignity and beauty, though now somewhat overloaded with ornament of varying scale and feeling. The design is full of admirable suggestion.

The economic condition apart, it is clear we need more simplicity, more sincerity in our building. In these days especially, when the sumptuosities of art are employed to promote the interest of the social and business advertisement, the church, if it is to possess a distinctive expression, if it is to have within its doors an atmosphere not of the street, must wear an aspect of reticence, of dignity, even of severity.

Buildings of the Young Men's Christian Association.

BY IRVING K. POND, C. E., ARCHITECT.

THERE has grown up in recent years a new factor for the betterment of spiritual, mental and physical conditions in the lives of young men the country, and almost, the world over. It is not quite fair to those who set in motion and who have so devotedly and continuously nurtured and directed this new force to say simply that it has grown. Grown it has, but it has been nurtured by personal and constant care, and though now it seems to the outsider to have acquired a momentum sufficient to keep itself in motion, the end of individual initiative and personal care to be expended on it is not yet. The prime movers can have had small conception of how vast a movement theirs was to become. To-day no town which does not contain its Young Men's Christian Association can boast a well-rounded social life. The church may be there, the school may be there, the library may be there, the club may be there, and each appropriately housed; but unless the Christian Association is there the life is not complete. The town will have been at pains to have an inspiring church edifice; it will do the best it knows with its schoolhouse; it will go abroad for an architect for its library. The conventions are established and every cultured citizen supposes himself to know what is required and what is the fashion in these buildings; but even the cultured citizen knows little more than in general of the needs and workings of the Christian Association, and when it comes to the problem of housing, the conventions cannot help him out, though not infrequently he blindly seeks their aid. As the scope of the work is unfolded, it will be seen that the Christian Association needs for its successful housing a building of much more complicated nature than that required by the church, the school, the library or even by the social club. It may demand the distinctive features of the typical building for any or all of these, and add thereto certain special features of the athletic club.

To bring order in plan out of what so easily might lapse into chaos, and to clothe the whole in a form of distinct and individual character is a no mean task to be set for an architect of even a high order of ability. It has been the misfortune of the Association that until fairly recently its buildings have quite generally fallen into the hands of no architect at all, or of those of inferior skill. Outside of a few of the larger city buildings, the plans had come from the minds of untrained secretaries,—untrained architecturally or otherwise; the designs have come from — who knows where? and character there never was. The secretary of to-day is highly trained along the lines of organization and management, and his work is highly specialized, but he has had and can have no architectural training; nor will he have or need such training. But the work of untrained secretaries and the taint of the commonplace in the public taste laid on Christian Association buildings of not so long ago that heavy burden of stupidity in plan and design which bears down so hard on the general run of evangelical church edifices.

It is the function of the Young Men's Christian Association to cultivate the social and spiritual graces, to instill a love for truth and strength. But the Christian Association, undenominational and unsectarian though it be in its work, had for a season in its spirit a touch of that Puritanism which looks askance at art, unless it be that simple and obvious art which is manifested in the general and uninspired run of modern academic work. Why do good people fear an art which touches the senses and appeals to the emotions? Why will they numb the finer feelings and seek only that art which in its very commonplaceness is worse than sin, for sin may be a momentary act, while this other is vulgar, and vulgarity is inbred? It will not be the function of this article to discuss questions of style, but rather to present those particular and practical matters of plan which will be found to be requisites in Association buildings of various types. But at the outset I must make a plea for freedom of design. I must ask building committees not to hamper the full and free development of a design which shall give distinctive and individual character to a Young Men's Christian Association building by forcing the architect to employ one of the cut and dried styles, be it Classic or Gothic, Colonial or Egyptian. None of these styles arose from the necessities of the Young Men's Christian Association. This Association has in it some of the elements which led originally to the development of each and all of the true styles. However, the repose of the Classic is not to be found in nor to be fitted to the dormitories or game rooms of the Young Men's Christian Association. Its gymnasium does not demand perpendicular Gothic for its full and consistent expression. The thin formality of the Colonial does not breathe that feeling of freedom and good fellowship one would seek and should find in the club and social rooms. The many and widely different uses to which the Christian Association building must be adapted should radiate outward from within, and show forth in the exterior, and would seem to demand for their complete and consistent expression a freedom and freshness of treatment such as are called for in few or no other classes of public or semi-public buildings.

The Young Men's Christian Association has a right to demand of the architects that its buildings shall possess all the inherent qualities of style, — beauty, dignity, sincerity and consistency; beauty in mass and color, dignity in design, sincerity in structure, and consistency within itself and in the adaptation of plan and design to use. There is opportunity to make the buildings of the Young Men's Christian Association as fresh and vital among buildings as its organization is among movements to exalt the standards of spiritual, intellectual and physical manhood.

The ideal of the Young Men's Christian Association is to develop along sane and wholesome lines the spirit, mind and body, so that in all the exigencies of life the young man shall find it possible and natural and pleasant to do the right with all his heart, with all his mind and with all his strength. Therefore the Association building should be so planned and designed as to minister naturally, efficiently and economically to the needs of the work. Into the training of the heart enter the social and religious elements. The training of the mind calls for work along general and special educational lines, touching more or less deeply the arts, literature, manual training and the applied sciences. The body is trained by the practice of carefully regulated systems of physical culture, laid down upon broad lines. The building to respond to this work must be equipped with social and lecture rooms, laboratories and classrooms and the gymnasium.

In the category of social and lecture rooms are the reception room, the parlors, the game room, the club and class rooms for religious instruction. The educational work calls for laboratories, shops, well equipped class or school rooms, — all adapted for evening classes, — library, reading and study rooms. The work of physical culture demands the gymnasium, accessory to which are the locker and dressing rooms, the toilet and the bath, — shower and tub, — the natatorium and rooms for special work, such as ball and tennis courts, the physical director's office and examination room. In addition to all or any of these there are needed the general office, secretarial and board rooms, check rooms, general toilet rooms and rooms to let, — all of which will be treated in detail in due course. The work of the Christian Association has not been conventionalized, and its buildings consequently and fortunately have not been standardized, so no rules can be made to apply rigorously to all cases.

Primary, secondary and high schools have developed certain marked characteristics which define the types closely, so that they may be dintinguished in whatever locality they may be found. But the work of the Young Men's Christian Association bends to local conditions and to the personality of those it is to help. There are three general classes, though, which can be clearly differentiated, however wide may be the variations within the class: the General Department, the Railroad Department and the Student Department. The numbers and character of the population, the extent of the funds available for establishment, equipment and maintenance, dictate the size and arrangement of the building and the magnitude of the work in each and all of these classes. The difference between buildings of these various classes shows broadly in this: those for the general departments will be equipped as far as possible with all the various rooms hereinbefore enumerated, that is, rooms necessary to house the management, the social, the educational and the physical sections of the work, and possibly dormitories. The buildings for railroad departments will be provided with rooms for rest and recreation. The educational features are quite subsidiary, while game rooms, smoking rooms, bathrooms and dormitories are of the utmost importance. The gymnasium for this type of building is a large room for general knockabout exercise, and is not equipped for special training. In the bathrooms, tubs are in demand, while showers are seldom or never used. In the buildings to house the student departments generally the educational rooms are not needed, nor the gymnasium, the college ministering sufficiently to these wants. Social rooms (including billiard rooms), lecture and assembly rooms, Bible-class rooms, game rooms, administration rooms and domitories are necessary to the prosecution of the work of this class.

(To be continued.)

The Work of the Boston Schoolhouse Commission, 1901-1905. V.

FURNITURE AND FITTINGS.

FURNITURE.

ONE of the most important works of the Schoolhouse Commission is the study of the proper seating of the children, which they have carried on for three years under the direction of Dr. F. J. Cotton of the Children's Hospital.

The practical value of proper desks and chairs for the different grades is not questioned to-day. The ill effects of improper sitting attitudes are many and serious. Eye-strain is a frequent result, and many serious deformities, as curvature of the spine, owe their beginning to wrong sitting postures, engendered not only by badly constructed chairs but by a wrong relation between chair and desk.

The first step was the culling out of the mass of literature on the subject, those scientific data and suggestions which seemed of practical value. The demands of different grades, and different developments of children in the same grade, clearly point to the necessity of adjustable furniture. It is argued against it, that in practice it is not adjusted and so may be worse than a fixed approximation. This may well be the case with some of the over-elaborated models in which scientific theories have been carried to an extreme. It would seem from the results of the Commission's investigations that many of the complicated adjustments physiologically desirable can be in practice eliminated, reducing the work of adjustment to a point where it can be properly done by the janitors, subject to correction in a small percentage of cases by expert observation.

The features to be provided for, which seemed essential after a study of the literature on the subject, have been confirmed in the subsequent experiments and may be stated as follows:

(1) Adjustment for height — vertically — of chair.
(2) Adjustment for height — vertically — of desk.
(3) A back rest of proper inclination with an adequate support for the lower back.
(4) A proper depth of seat.
(5) A proper slope of seat.
(6) An adjustment of desk or chair for plus or minus distance *(varying with position).

All these features have been provided for in the furniture resulting from these experiments except No. 6. When reading, the chair and desk should be nearer together than when writing, but no device yet presented is really satisfactory. Those which work best are too complicated and expensive, while the simpler ones are not very smooth running and by no means noiseless.

The only one of the other requirements that needed any study was No. 3, a back rest which should give proper support for the lower back. The furniture on the market provided the other needed adjustments, but in none had the back support been carefully considered. What was needed was a uniform model, adjustable for height, concave from side to side, to minimize lateral twisting, and so curved as to support properly the lower back, maintaining the normal curve of the spine, the seat back stopping below the shoulder blades.

It would seem that heretofore the problem had been considered merely theoretically, on paper. In the summer of 1903, however, models were carved out according to theoretical data and then tested on a considerable number of children at the Children's Hospital. The models were tested for both normal and slightly abnormal back curves, and the value of the experiments was added to by the criticism and suggestions of the hospital staff and Dr. Lovett, through whose courtesy the experiments were made possible. From these experiments two models were shown to be necessary, one for larger, and one for smaller children. The curves originally formed were shown to need certain alterations, and with "modeling compound" and a draw shave, these changes were gradually made, constantly checking results with fresh trials. It was demonstrated in these tests that a comparatively low back support is ample, and the value of a clear space between the point of support and the chair seat, to accommodate the individual variation in fat and clothes about the hips, was proved an advantage. An important physiological reason for such a clear space, and one that seems to have been heretofore overlooked, is the fact that in leaning forward for writing the spine does not simply swing away from the support. There is a slight rocking of the pelvis, and a tendency of the pelvis to slide back (on the yielding flesh of the buttocks) in such a way that the back is still in contact with the support and may be definitely steadied if the support be rightly curved. This point and the form of support adopted as a result of these experiments are shown in Fig. 1.

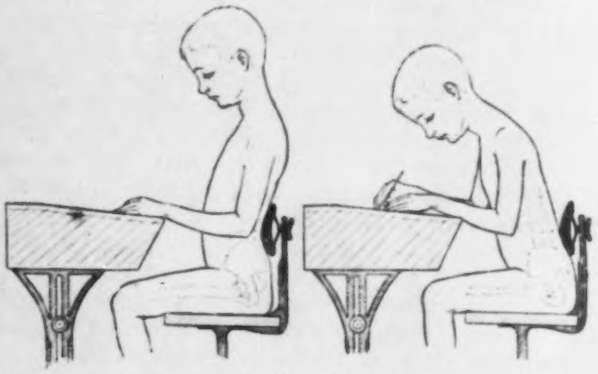


FIG. 1.

The curved support for the large children is nine and three-quarters inches wide and five inches high, with a concavity of one inch in depth from side to side, and a convexity of one inch in profile, the whole very slightly tilted backward, the maximum convexity coming about one-third the way up. This support is carried on a light casting running in the groove of a single cast-iron upright attached to the back of the seat. A set screw was at first used to fix the height after adjustment, but it has been found necessary to substitute a nut, as the set screw after a while became loose enough to be turned by the children, though originally set up with a wrench.

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* Plus distance is that between the front edge of the seat and the vertical line dropped from the near edge of the desk; minus distance, the distance of the front edge of the seat in advance of this line.

The desk is adjustable for height, as can be readily seen in Fig. 2, which shows the new furniture as installed in the William E. Russell School.

Having developed two sizes of chair, and using three commercial sizes of desk, the question of adjustment was still to be solved. Unless some rule for adjustment could be devised, the setting of furniture each year, in the Mather School, for instance, with 1,500 pupils, would be a serious problem.

The height of the desk called for no study, as the commercial scale seemed adequate, which called for a rise of eleven-sixteenths inch increase of desk height for every inch increase of seat height. This keeps the desk as low as sufficient knee room will allow. Each member of an incoming class is measured for the "base measurement," that is, from floor to bend of knee in sitting posture, which gives the proper seat height, and automatic scales, which are obtainable, give readings for height of desk for each seat height. The two points that required study were the forward and back relation between chair and desk and the height of back support.

FIG. 2.

It at first seemed as if individual adjustment would be necessary, but after considerable experience it has become evident that an adjustment by scale, according to the recorded base measurements, gives proper seating in the large majority of cases, and that expert inspection afterward will readily pick out those cases of unusual development which call for special adjustment. These rarely exceed fifteen per cent.

The usual setting of the seat is at zero distance, that is, the front edge of seat directly under front edge of desk, but with only two sizes of chair seat and three sizes of desk for the nine grades, it has been found that with the smallest grades which use each size of seat, a one-inch minus distance is advisable, bringing the seat nearer the desk. A table has been developed for the different grades, in which the distance from edge of desk to top of back rest varies from ten and one-half inches for the smaller grades to thirteen and one-half inches for the larger grades, and in a large number of rooms set up according to this scale the results have been very satisfactory. It has proved that the chair seats adjustable for distance, which are provided in each back row, are not ordinarily needed, the routine adjustment by rule being accurate enough.

In the adjustment of the back support for height, the experiments again proved that the theoretically necessary individual adjustment was shown to be in practice unnecessary. Microscopic accuracy of adjustment is not called for. In a number of rooms the adjustments by scale were carefully corrected for the individual cases. This was an enormous task and, in an endeavor to find a scale for ordinary adjustment, measurements were taken of the distance of the top of back rest above the top of near edge of desk. Discarding the evidently exceptional cases, the distance varied from one-half to one and one-half inches. Theoretically it was decided, before the experiments, that the point of maximum convexity should come at the height of the hip bone at the side. The individual distance seems to vary independently of other measurements, and it has been impossible to make definite allowance for it. A scale adjustment was tried, however, of three-quarters of an inch for small desks, and one and one-quarter inches for large desks, after the ordinary adjustment of seat and desk for height had been made. It proved very satisfactory for nearly all except the largest girls, and the cases of obviously unusual formations. There were also a few cases needing special adjustment, on account of some improper sitting attitude, rather than anatomical formation. But with the curve of the support accommodating itself to the normal back curve, this arbitrary adjustment strikes very close, and the small percentage of exceptional cases which demand special adjustment, generally about twelve per cent, are easily picked out in a first walk around the room by an expert.

There is need for a third model of back support for girls of fuller development, but, with this exception, the furniture evolved by this investigation seems to be adequate and a vast improvement over the previous types. The matter of adjustment has been reduced to a scale that will allow of adjustment out of school hours, by janitors, according to a single measurement for each child. Beyond this there should be some administrative arrangement by which the special adjustments, for exceptional cases in each incoming class, could be made yearly by an expert.

FITTINGS.

The various fittings for wardrobes, the bookcases and dressers for classrooms and cooking rooms, and other miscellaneous fittings, such as map-holders, bulletin boards and chalk rails, have received continuous attention, and have been brought to standards for both the primary and the grammar schools. Drawings of these standards are furnished by the Board for the information of the architects and contractors. (Fig. 3.) In the same way, the various plumbing traps and catch-basins, as well as the fixtures themselves, have been standardized. (Fig. 4.) The sheet of plumbing standards issued by the Board shows both a porcelain latrine and a short hopper closet. In the primaries, the latrines have given excellent satisfaction, but where there is any objection to this form of closet by the head masters the short hopper closets are installed, though they are more difficult to keep clean, more easily damaged and no more sanitary.

The construction of the partitions has been made uniform as well. The Board approves of omitting the doors entirely in the primary schools, and on the boys'

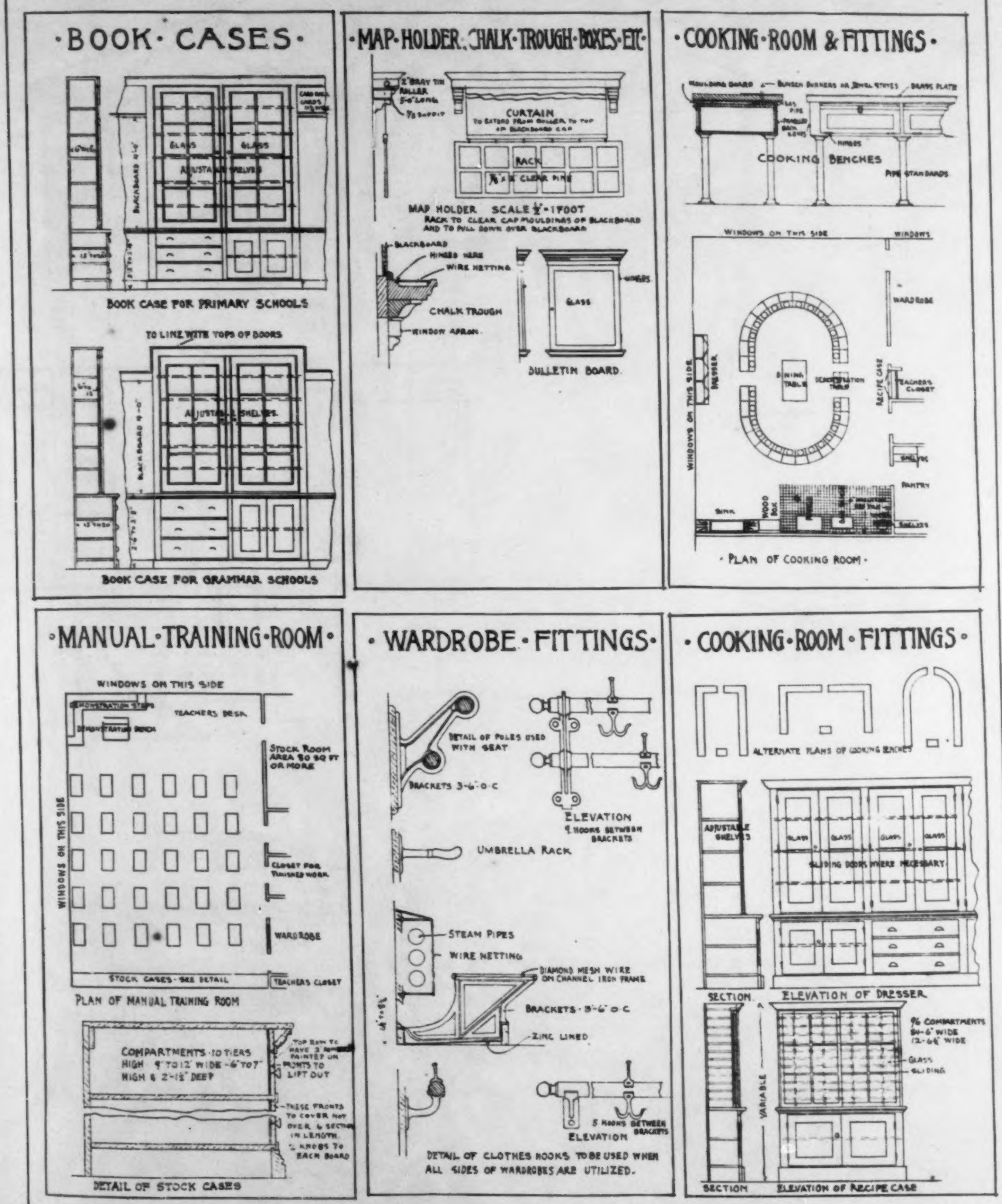
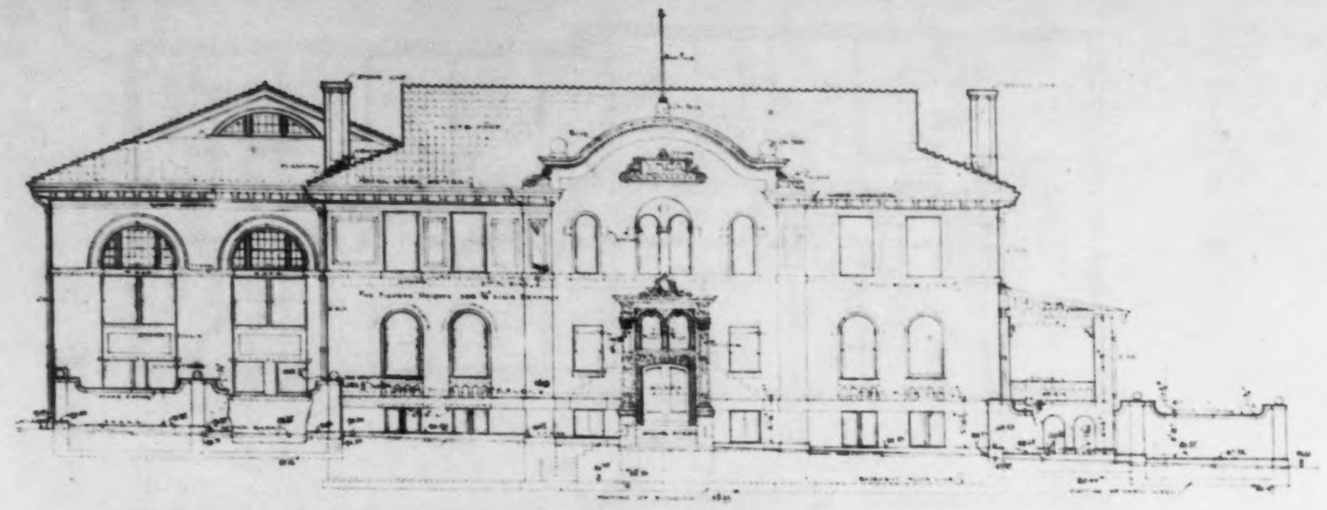
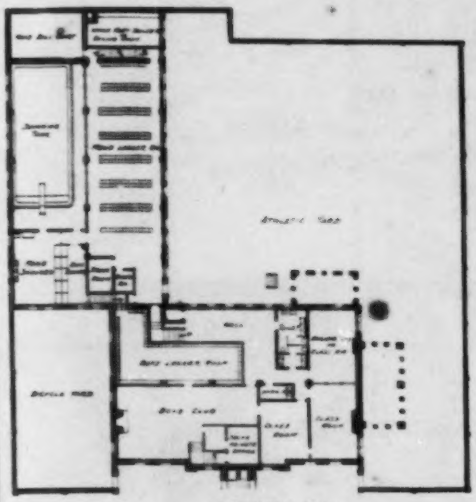


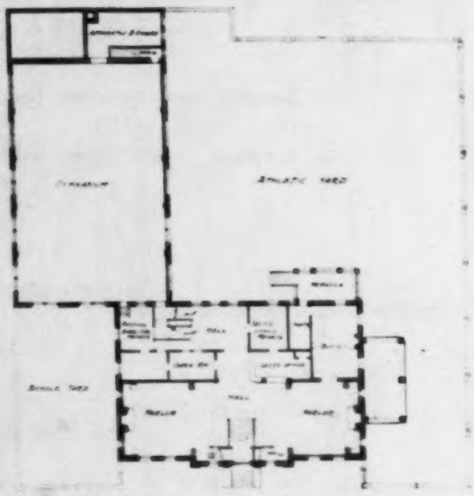
FIG. 3. STANDARDS OF GENERAL DETAIL, SCHOOLHOUSE DEPARTMENT, CITY OF BOSTON.



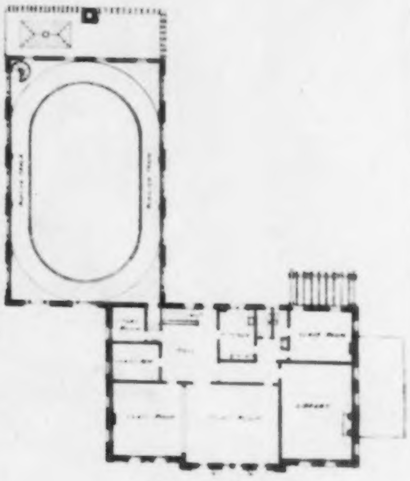
FRONT ELEVATION.



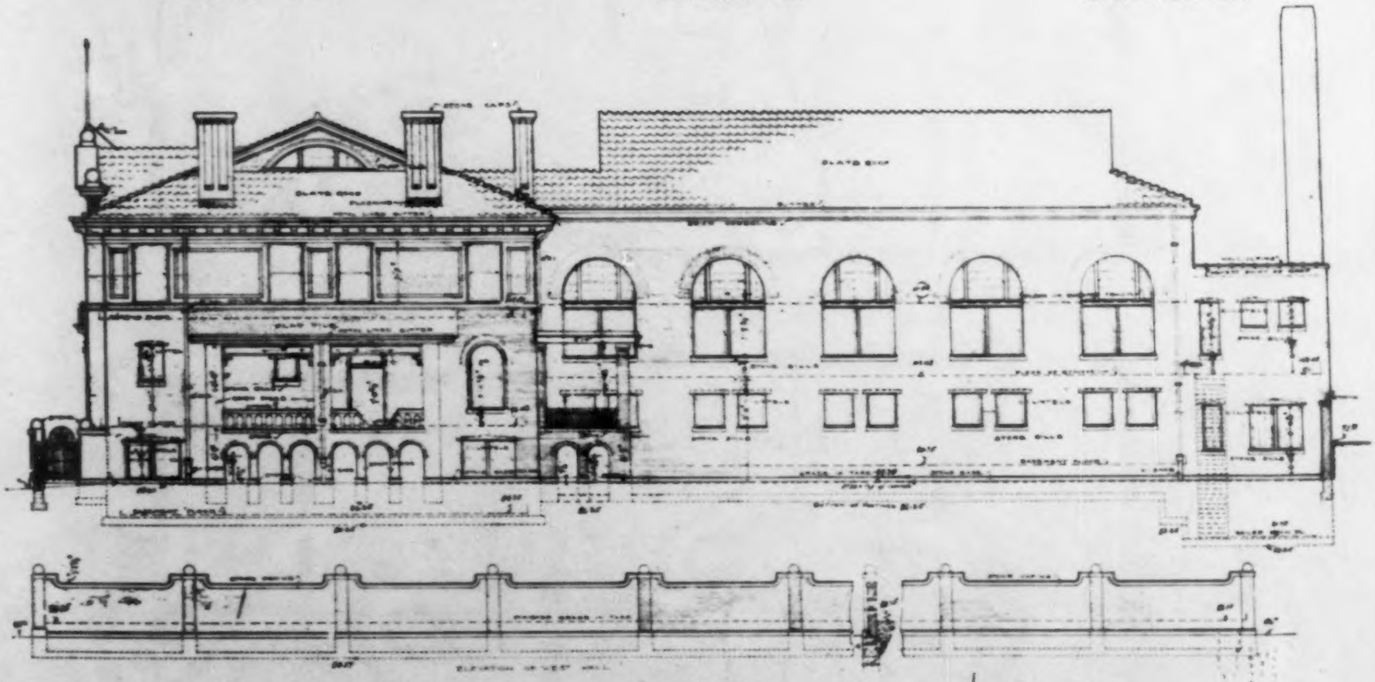
BASEMENT PLAN.



FIRST FLOOR PLAN.



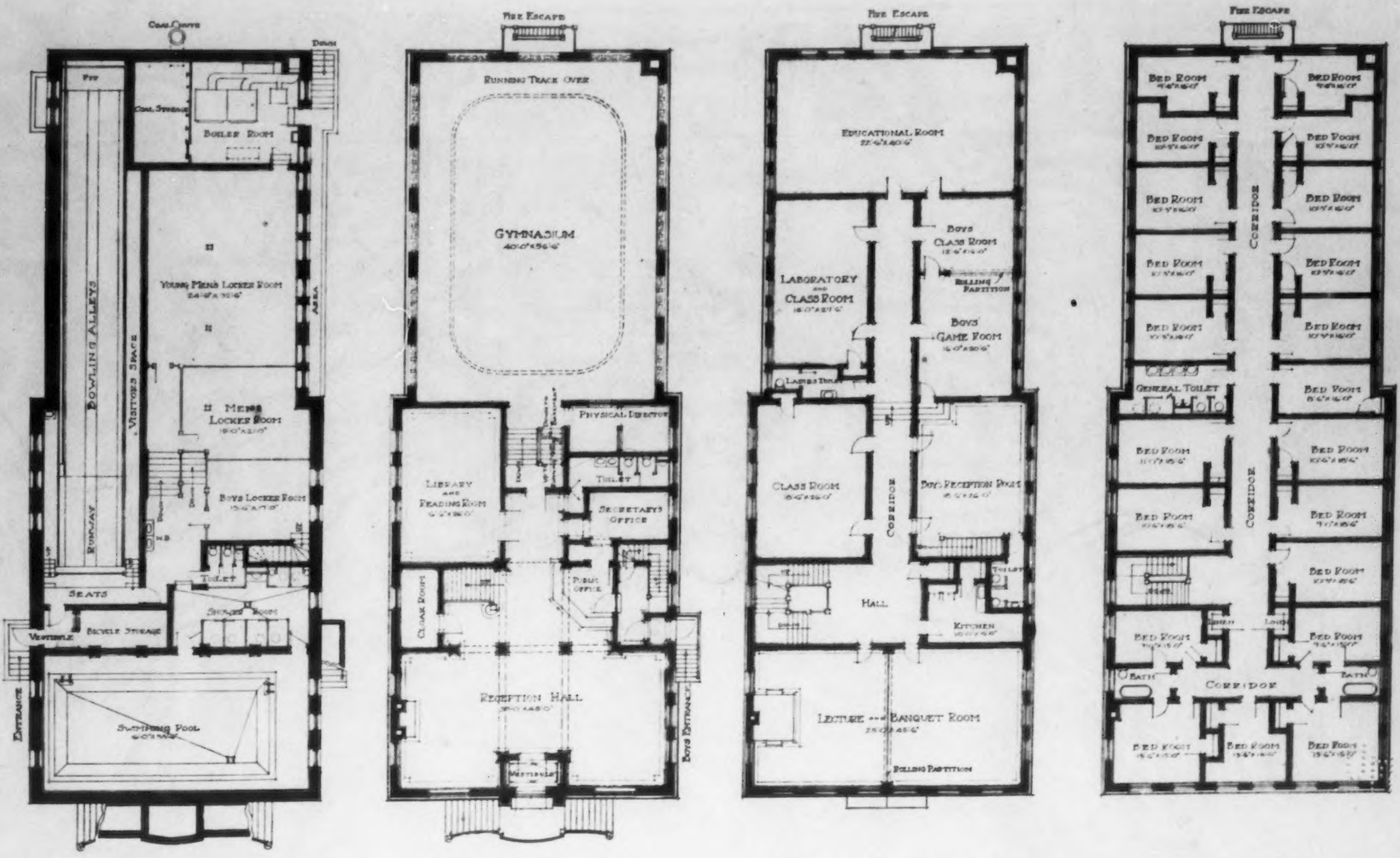
SECOND FLOOR PLAN.



SIDE ELEVATION.

ELEVATIONS AND PLANS, Y. M. C. A. BUILDING, DECATUR, ILL.

MAURAN, RUSSELL & GARDEN, ARCHITECTS.



BASEMENT PLAN

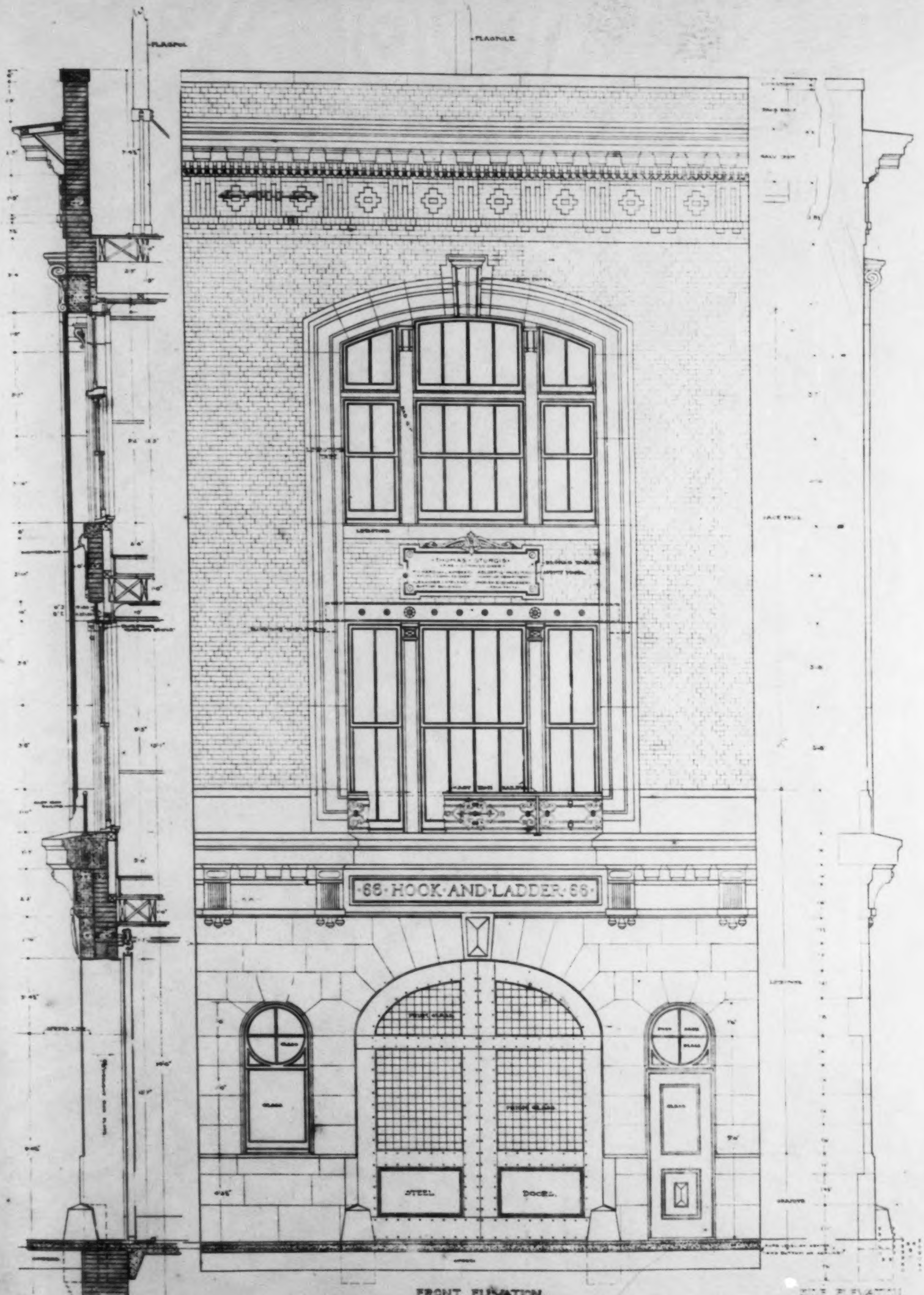
FIRST FLOOR PLAN

SECOND FLOOR PLAN

THIRD FLOOR PLAN

PLANS Y. M. C. A. BUILDING, NIAGARA FALLS, N. Y.

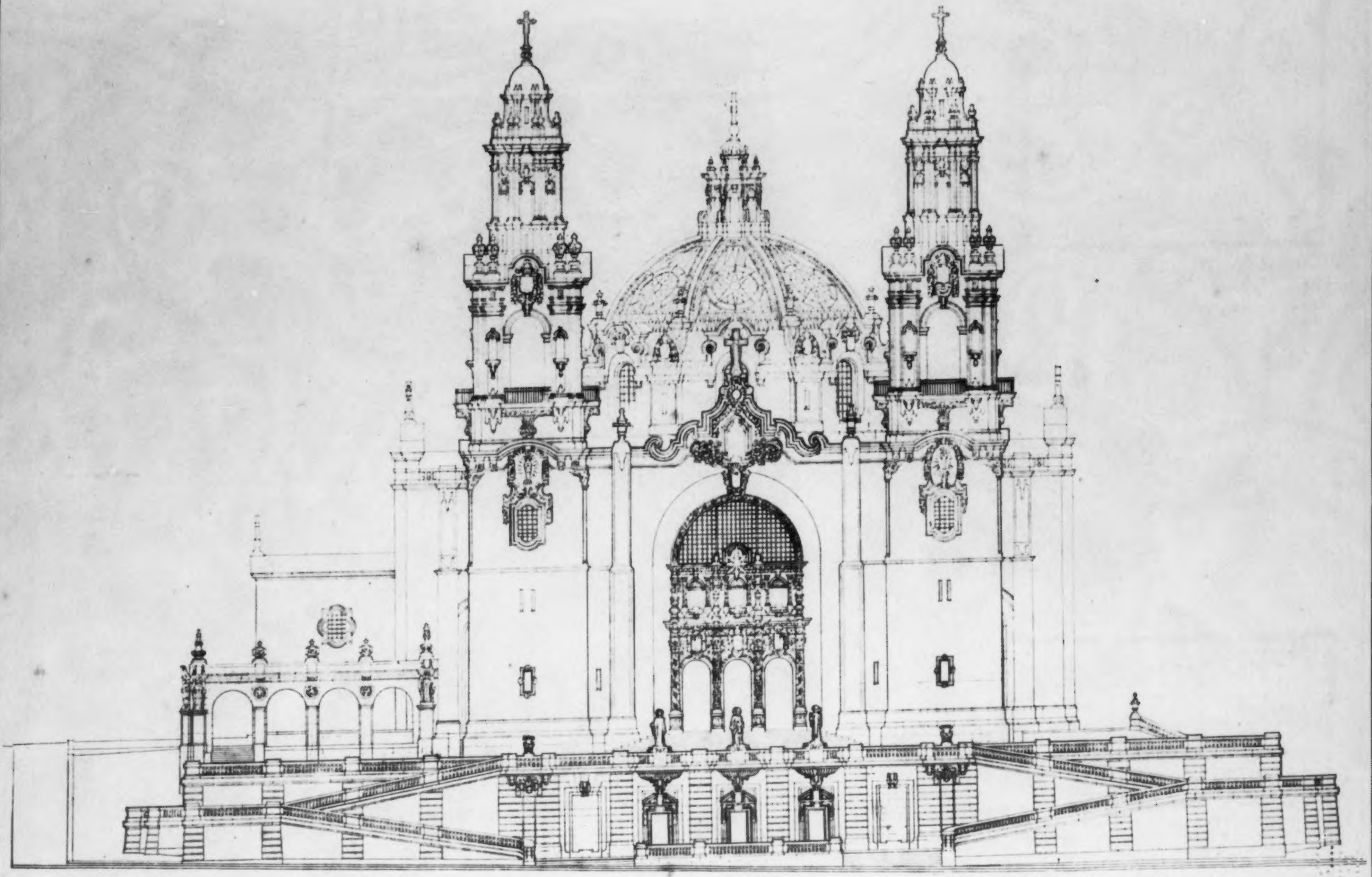
SEYMOUR & PAUL A. DAVIS, 3D, ARCHITECTS.



FRONT ELEVATION.

FIRE DEPARTMENT HOUSE, LONG ISLAND CITY, L. I., N. Y.

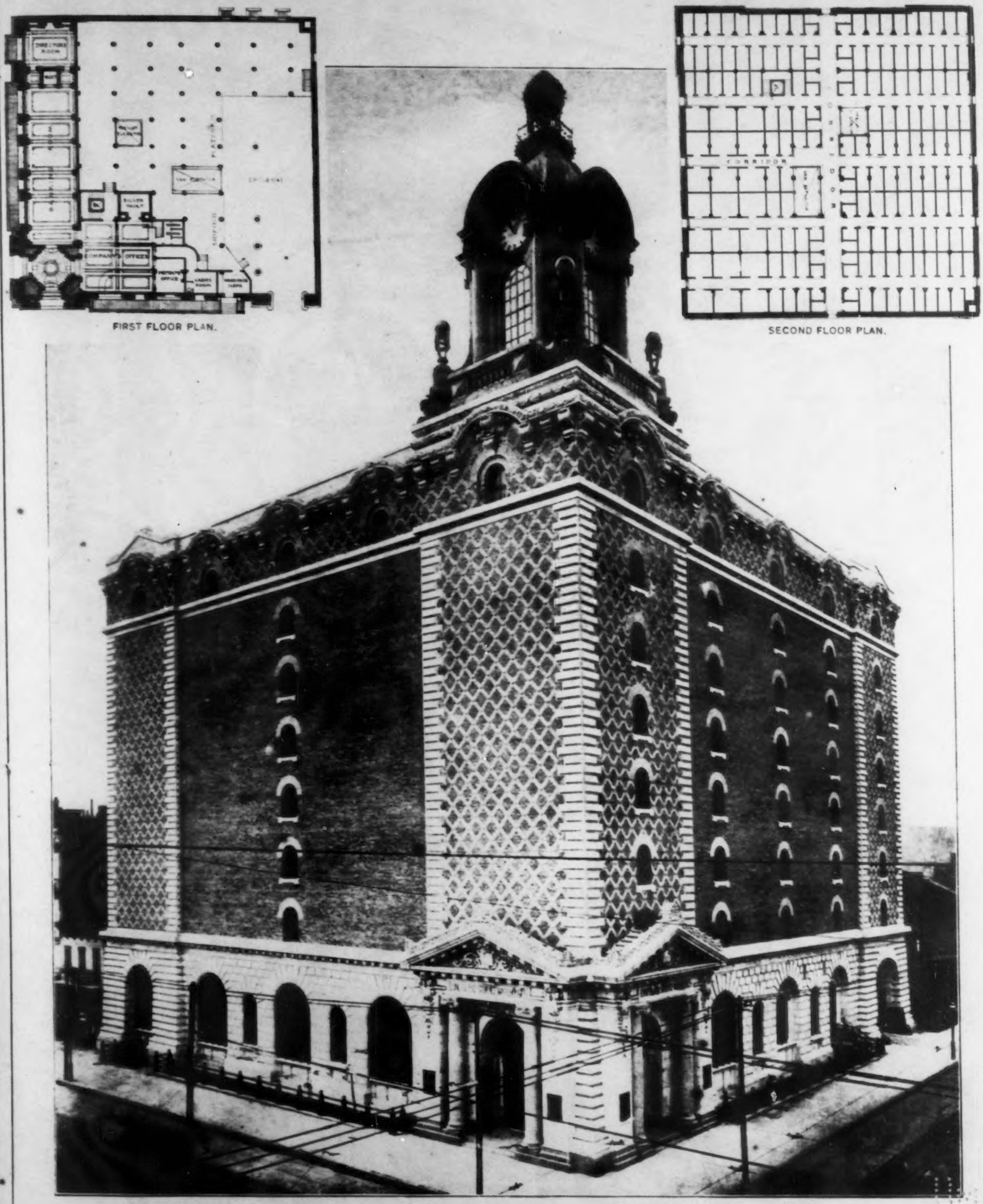
PARISH & SCHROEDER, ARCHITECTS.



SOUTH ELEVATION.

CATHEDRAL OF ST. VIBIANA, LOS ANGELES, CAL.

MAGINNIS, WALSH & SULLIVAN, ARCHITECTS.



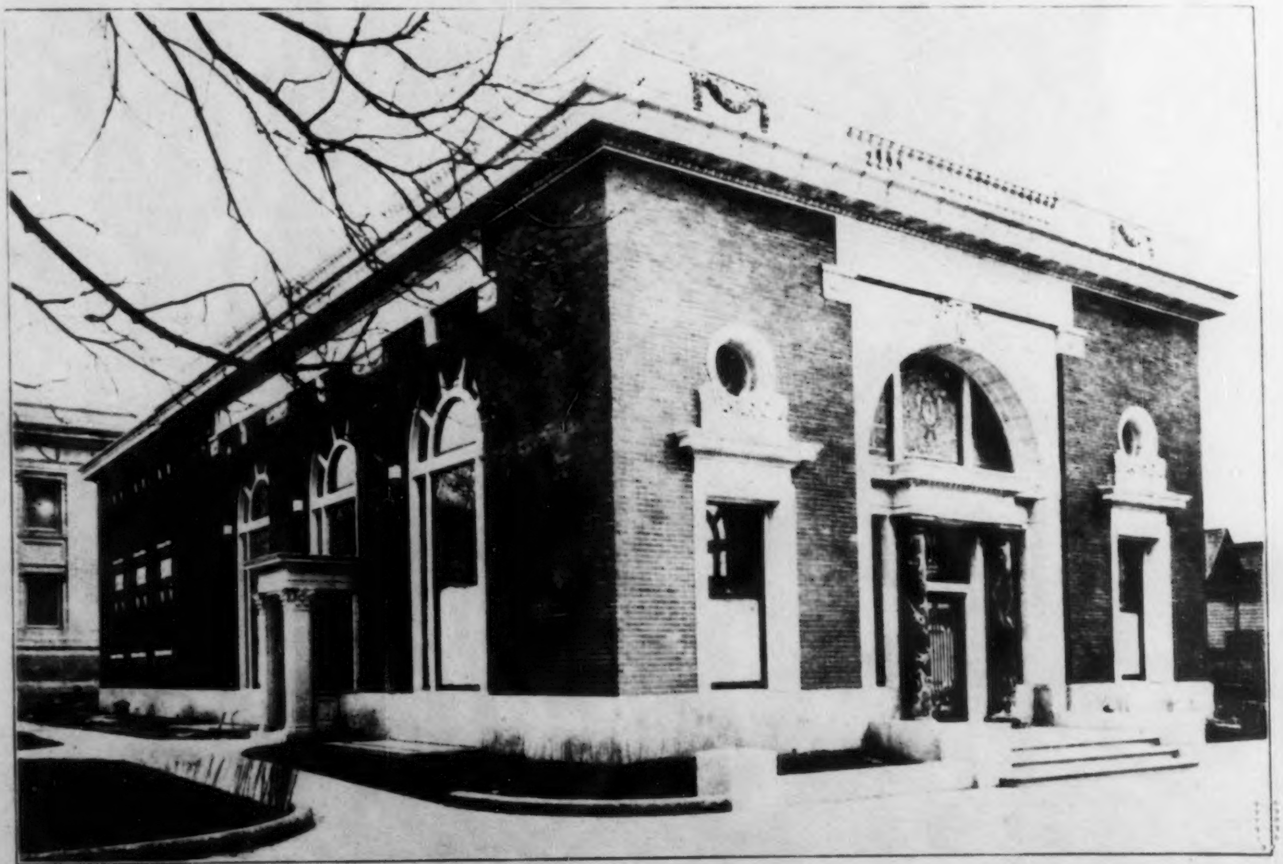
FIRST FLOOR PLAN.

SECOND FLOOR PLAN.

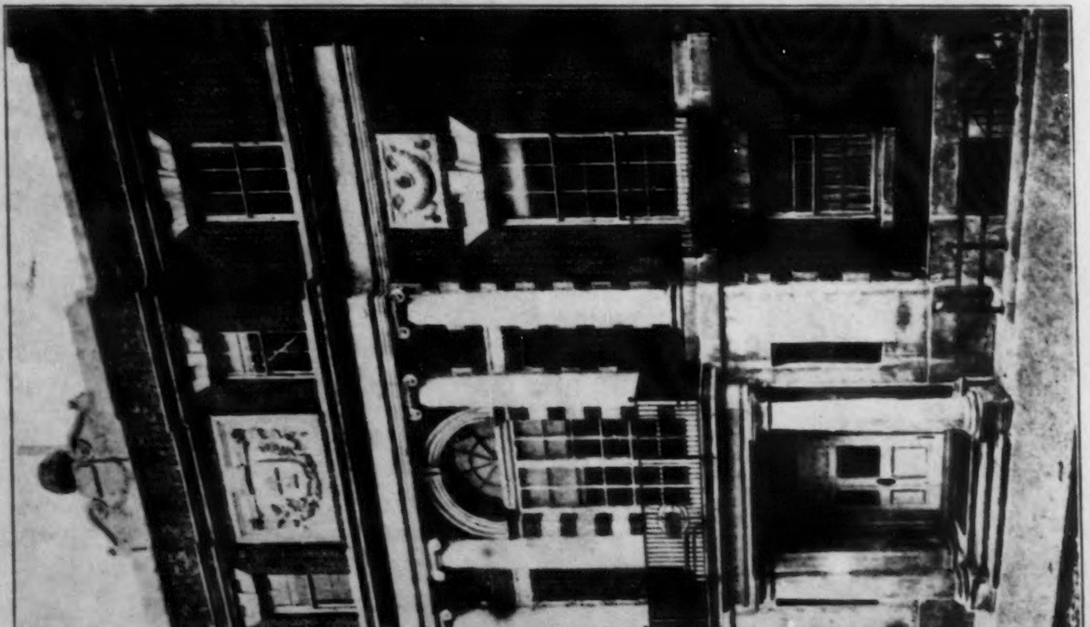
LONG ISLAND STORAGE WAREHOUSE, BROOKLYN, N. Y.

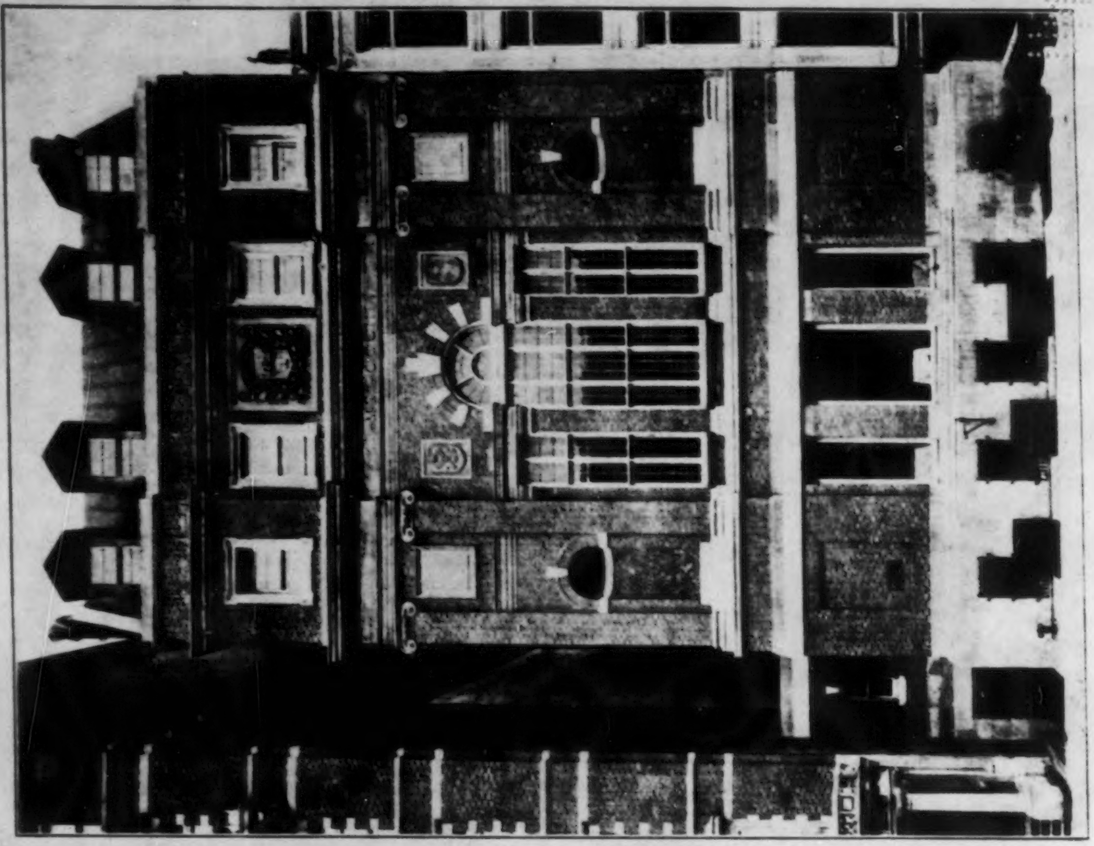
HELMLE & HUBERTY, ARCHITECTS.

"THE THRIFT" SAVINGS INSTITUTION, BROOKLYN, N. Y. [illegible] & BROTHER, ARCHITECTS.



FLATBUSH TRUST COMPANY BUILDING, BROOKLYN, N. Y. KIRBY, PETIT & GREEN, ARCHITECTS.

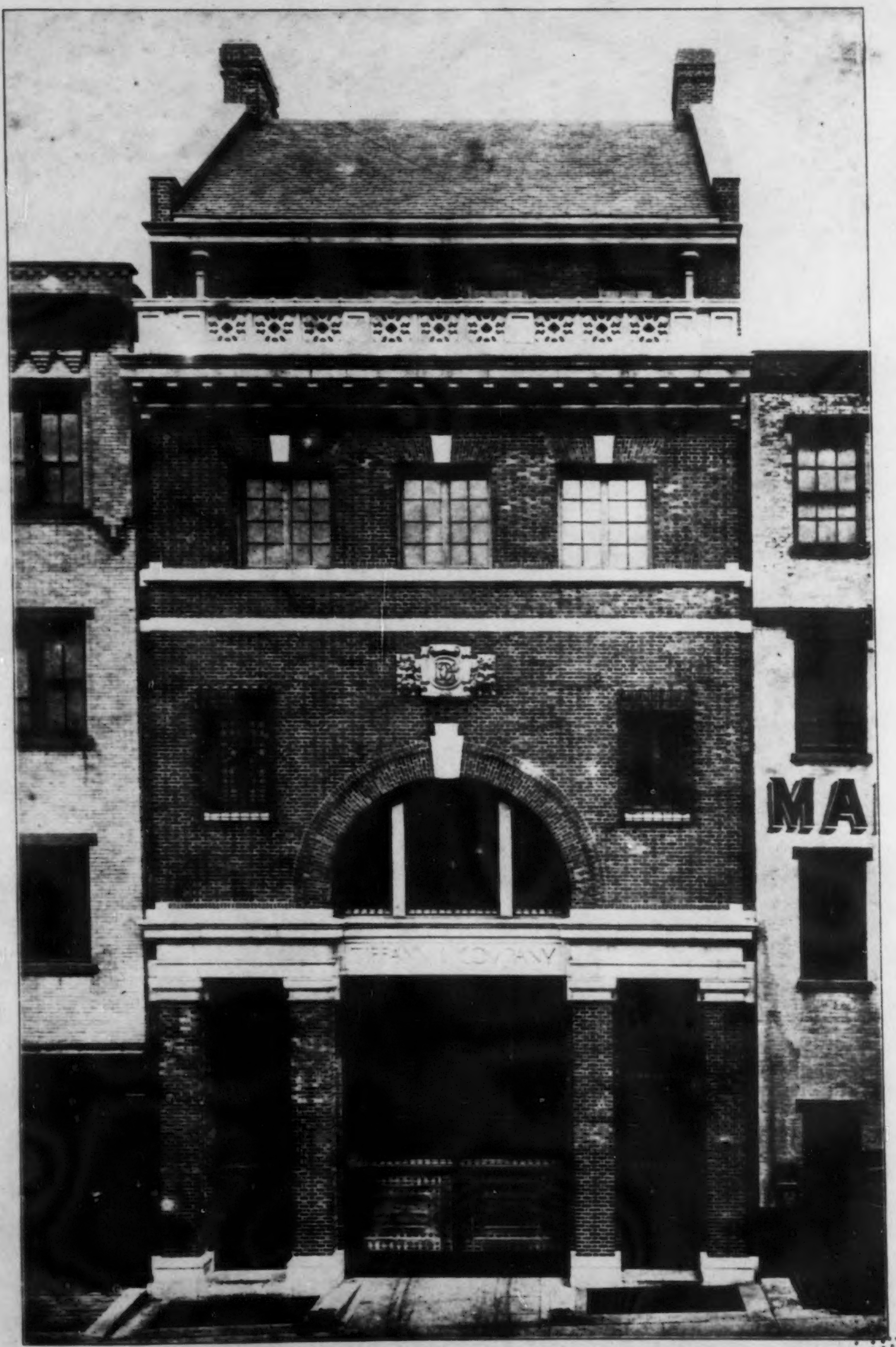

THE OLD FACADE, WEST 44TH STREET.


THE NEW FACADE, WEST 44TH STREET.

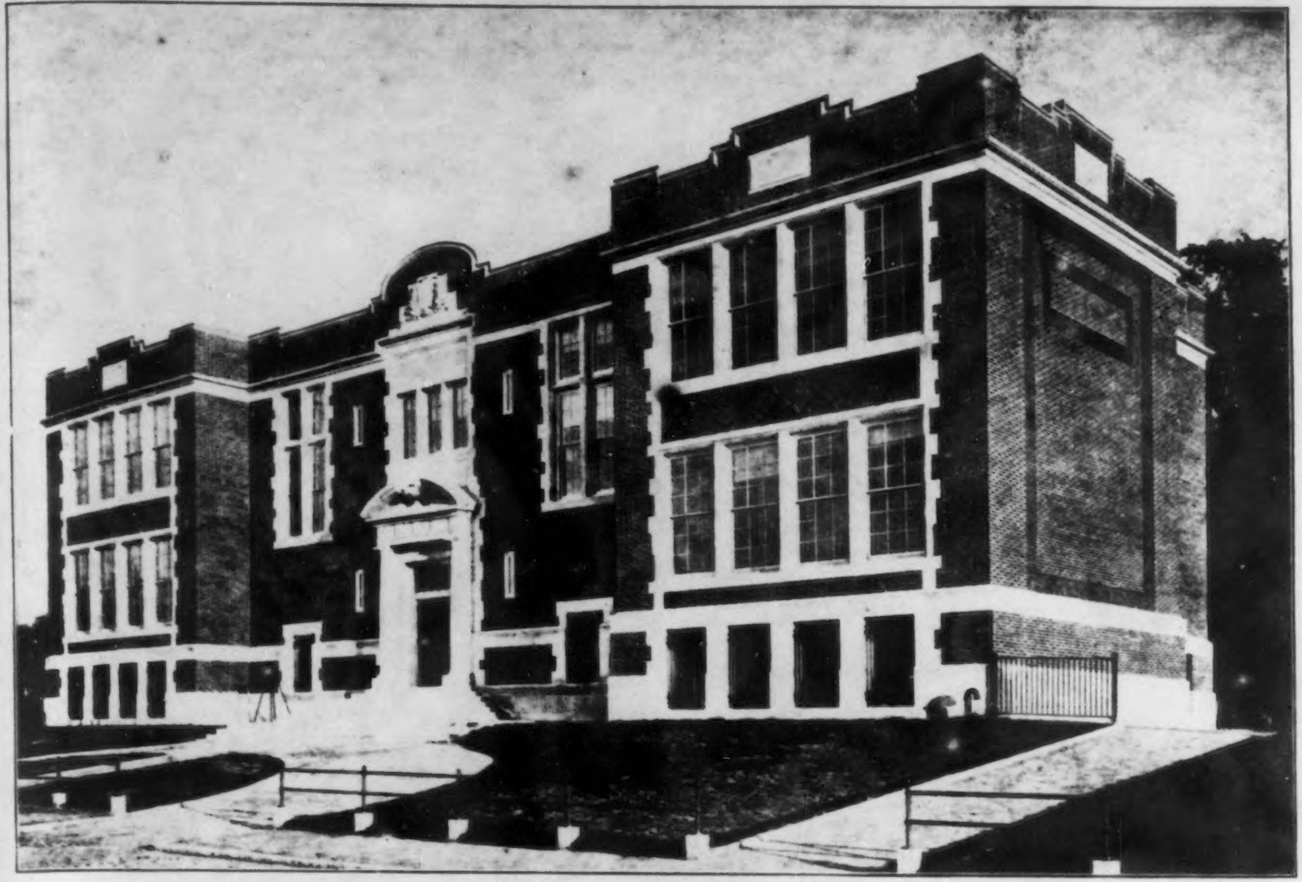
THE HARVARD CLUB, NEW YORK CITY.
McKIM, MEAD & WHITE, ARCHITECTS.

THE GREAT HALL, HARVARD CLUB EXTENSION, WEST 45TH STREET, NEW YORK CITY.

McKIM, MEAD & WHITE, ARCHITECTS.

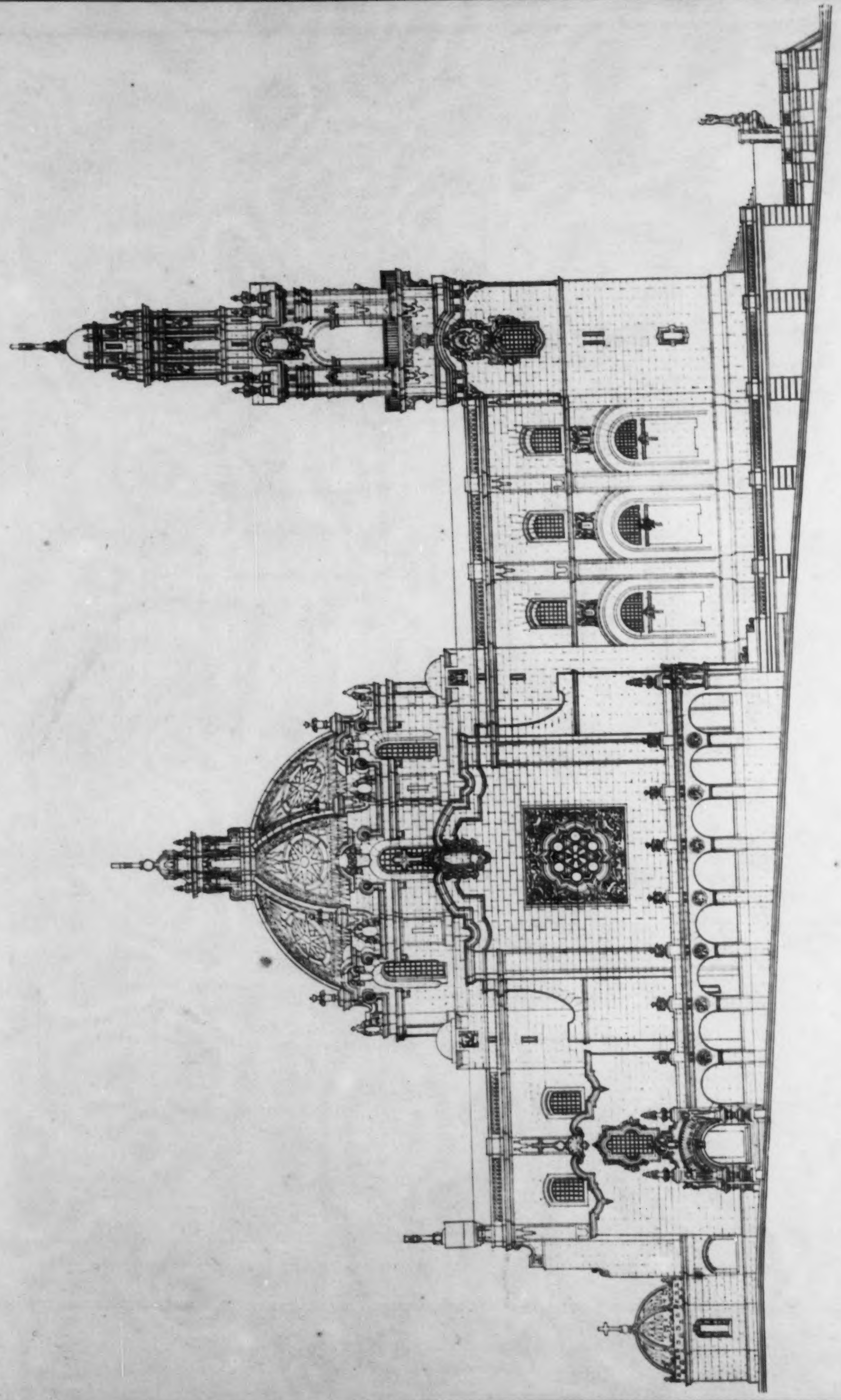


GARAGE FOR TIFFANY & CO., NEW YORK CITY.
McKIM, MEAD & WHITE, ARCHITECTS.



THE JOHN GREENLEAF WHITTIER SCHOOL, BOSTON.
PARKER & THOMAS, ACRHITECTS.

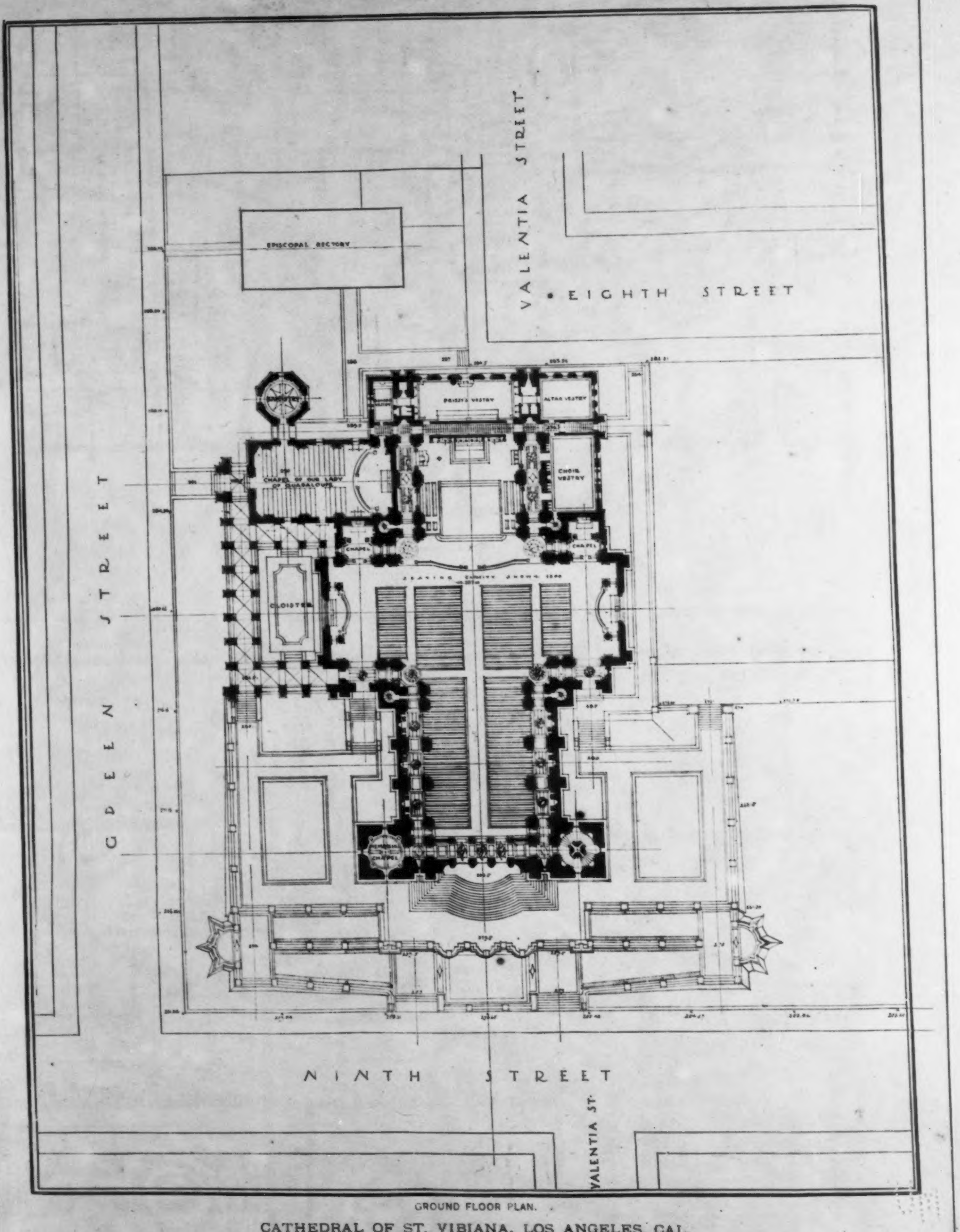
THE SARAH J. BAKER SCHOOL, BOSTON.
J. A. SCHWEINFURTH AND JOHN J. CRAIG, ARCHITECTS.



WEST ELEVATION.

CATHEDRAL OF ST. VIBIANA, LOS ANGELES, CAL.

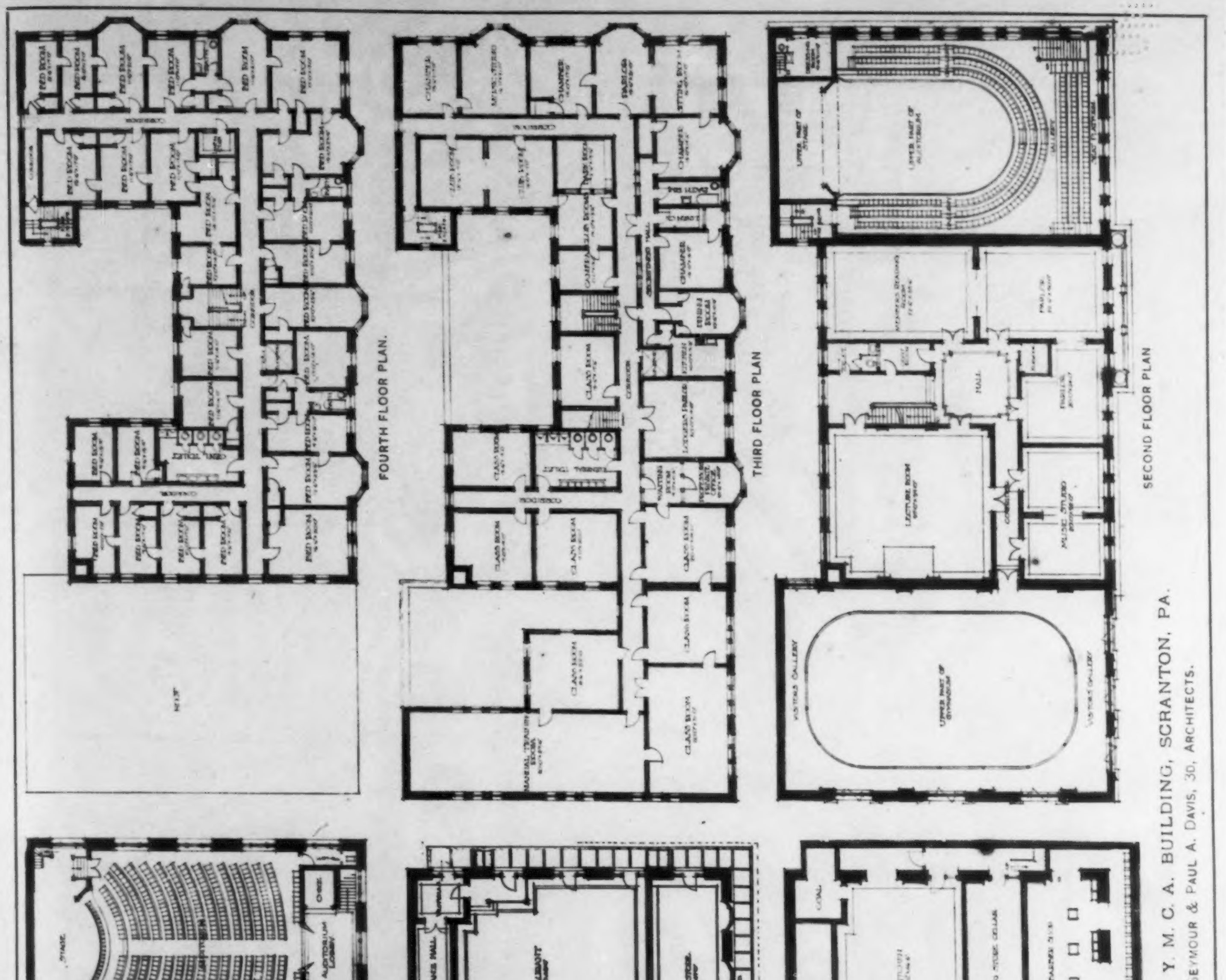
MAGINNIS, WALSH & SULLIVAN, ARCHITECTS.



GROUND FLOOR PLAN.

CATHEDRAL OF ST. VIBIANA, LOS ANGELES, CAL.

MAGINNIS, WALSH & SULLIVAN, ARCHITECTS.



FOURTH FLOOR PLAN.

THIRD FLOOR PLAN

SECOND FLOOR PLAN

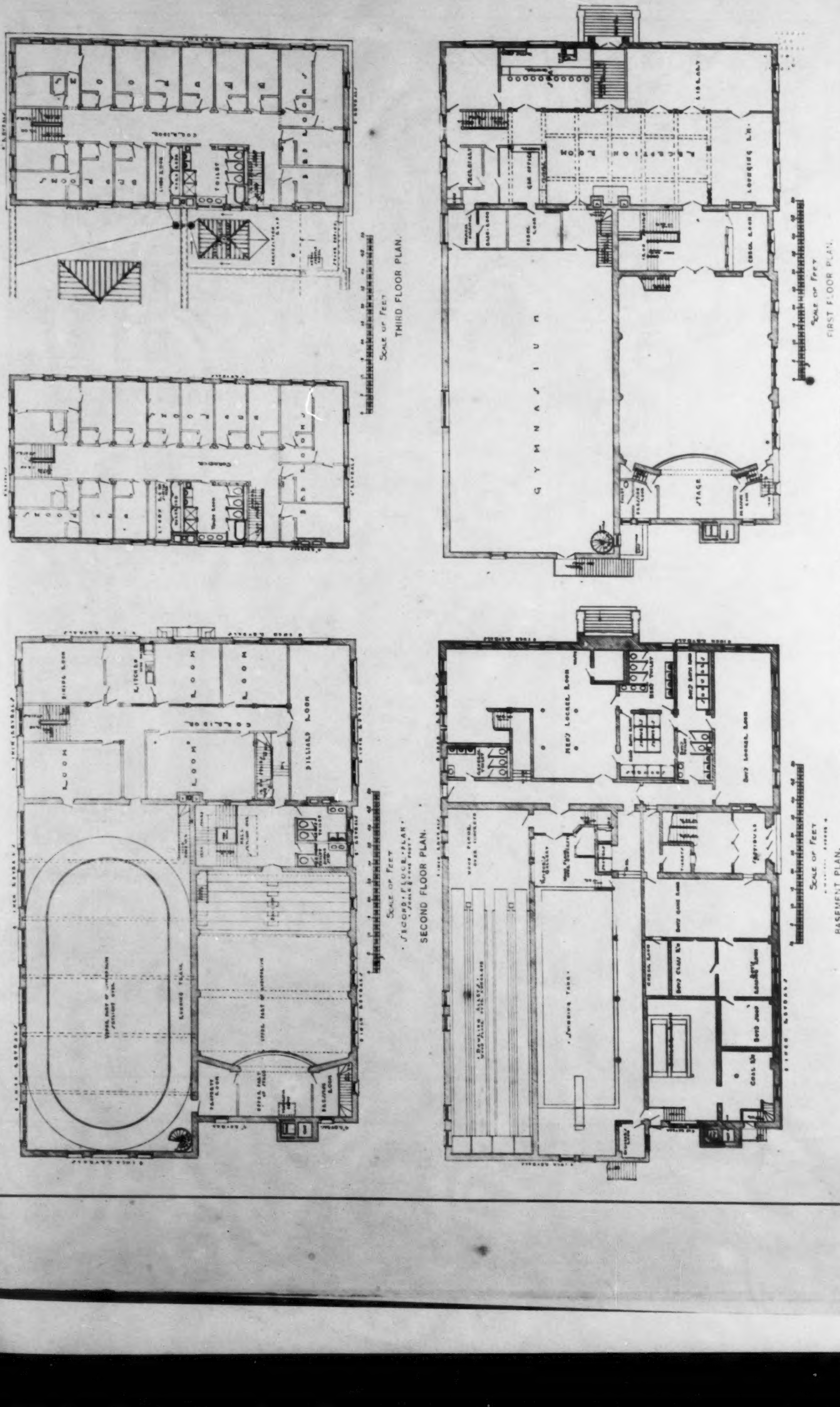
MEZZANINE FLOOR PLAN.

FIRST FLOOR PLAN.

BASEMENT PLAN.

PLANS, Y. M. C. A. BUILDING, SCRANTON, PA.

SEYMOUR & PAUL A. DAVIS, 3D, ARCHITECTS.



PLANS, Y. M. C. A. BUILDING, HYDE PARK, CHICAGO, ILL.
FROST & GRANGER, ARCHITECTS.

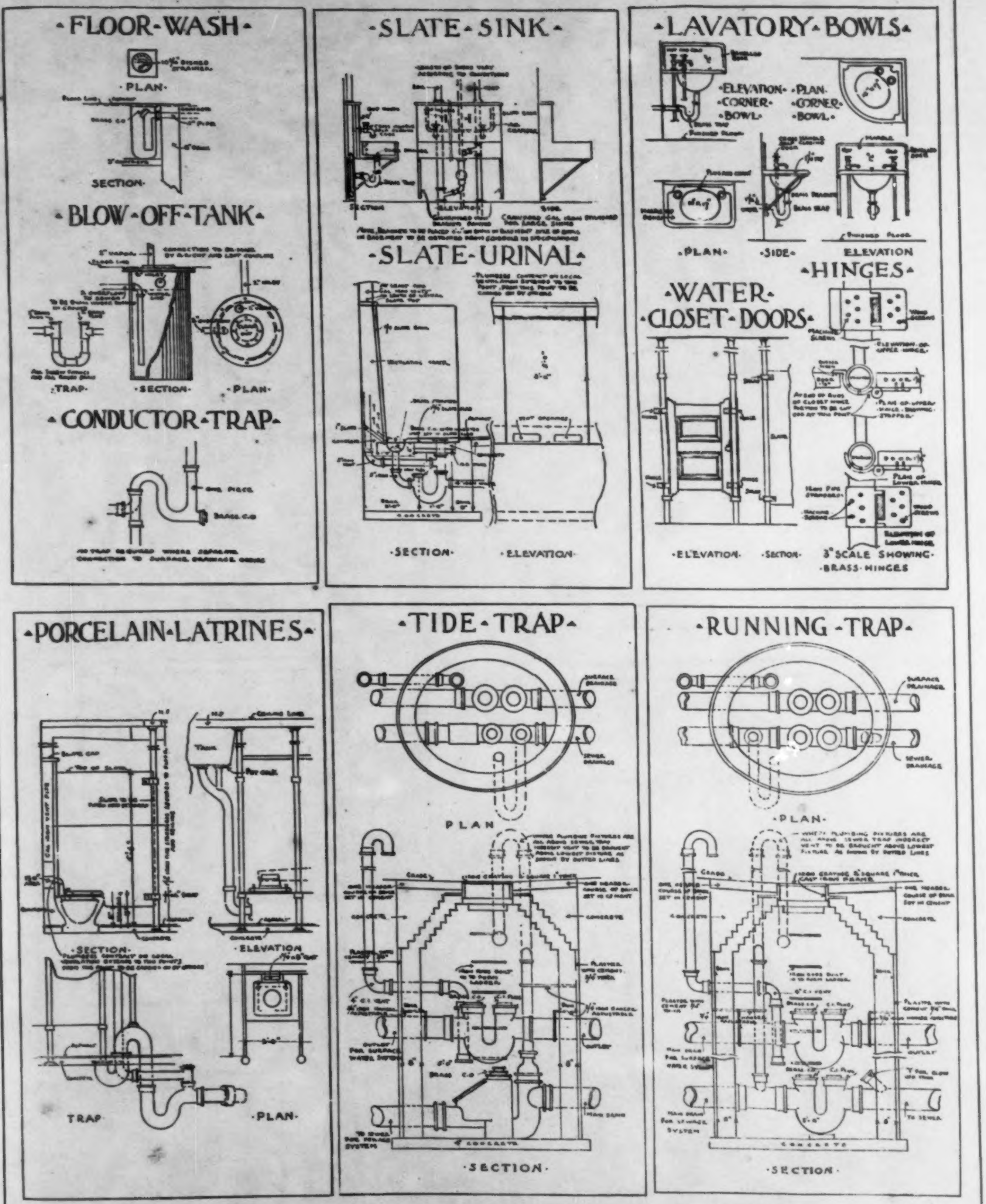
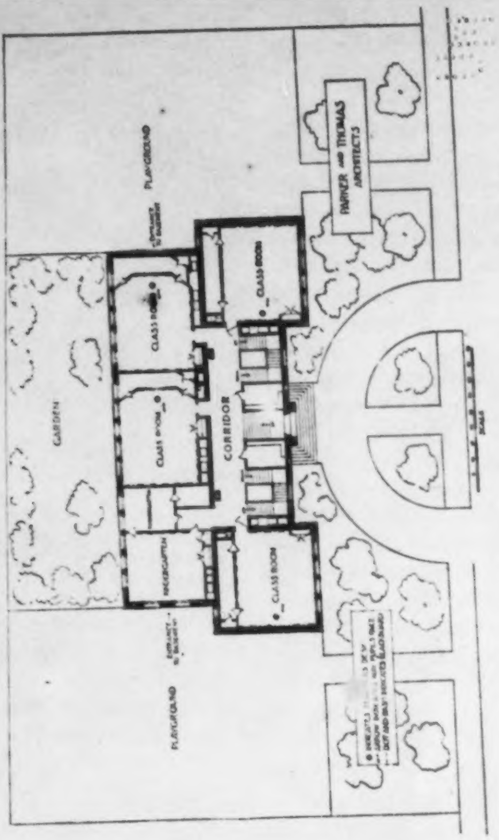
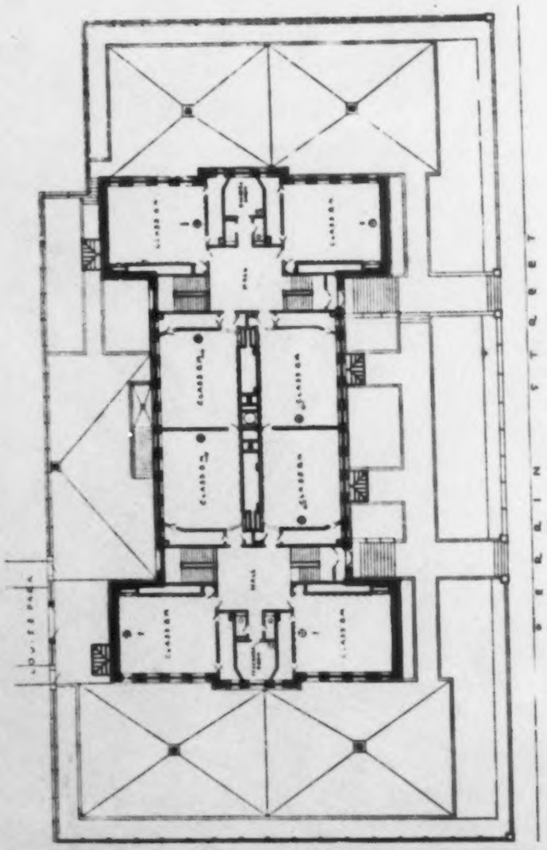


FIG. 4. PLUMBING STANDARDS, SCHOOLHOUSE DEPARTMENT, CITY OF BOSTON.

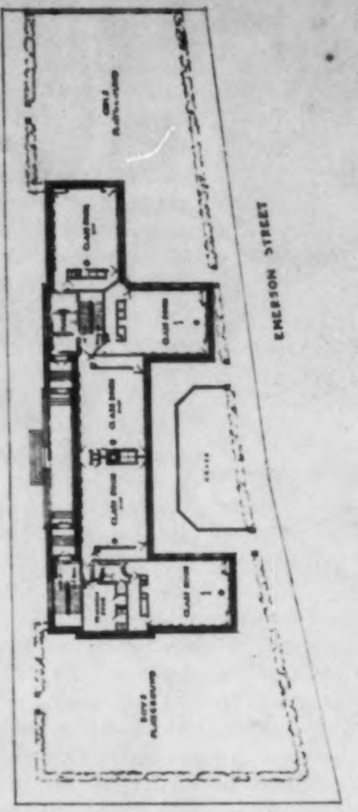


FIRST FLOOR PLAN, JOHN GREENLEAF WHITTIER SCHOOL.

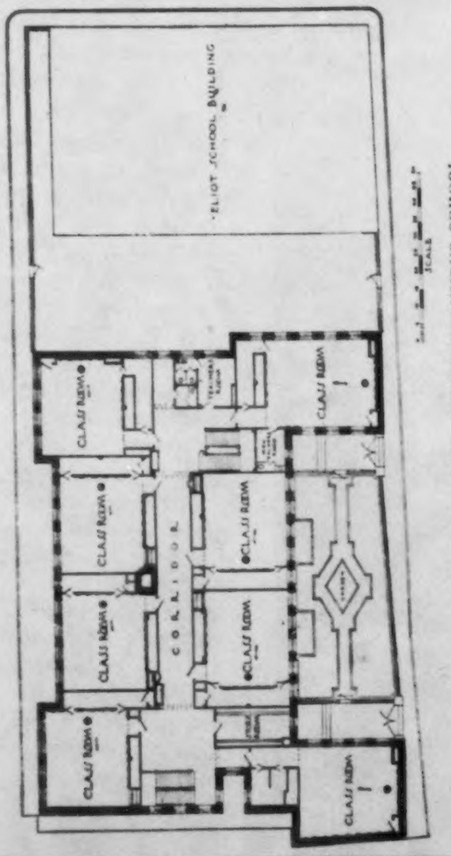


FIRST FLOOR PLAN, SARAH J. BAKER SCHOOL.

CROSS IN CIRCLE, TEACHER'S DESK. LINE AND DOT, BLACKBOARD.

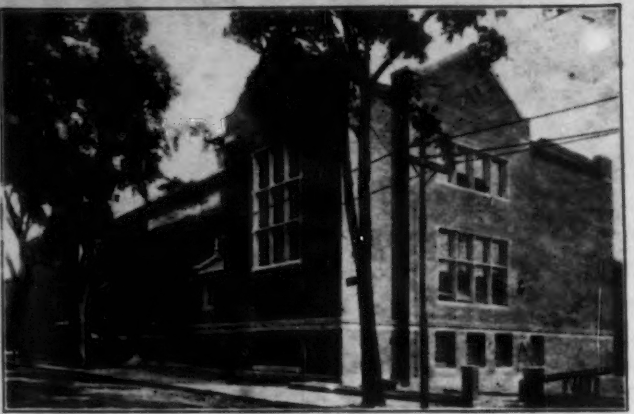


FIRST FLOOR PLAN, TUCKERMAN SCHOOL.



FIRST FLOOR PLAN, CHRISTOPHER COLUMBUS SCHOOL.

side in the grammar schools. They do not insist on this, however, believing it to be to a certain extent a matter of administration, and so follow the wishes of the masters in this respect. In the matter of urinals, however, they have been unable to come to an agreement with the other school authorities, and install the continuous urinal, without partitions, which they consider the most sanitary and easily cleaned.



THE TUCKERMAN SCHOOL.
Primary, Lincoln District, corner L and E. Fourth Streets, So. Boston.
Charles K. Cummings, Architect.
10 rooms: 500 pupils.
Cube, 306,748 (350,000). Cost cubic foot, $0.25 ($0.22).
Cost, $77,065.90 ($77,000). Cost per pupil, $154 ($154).
(Figures in parentheses are limits set by the Board.

REPAIRS.

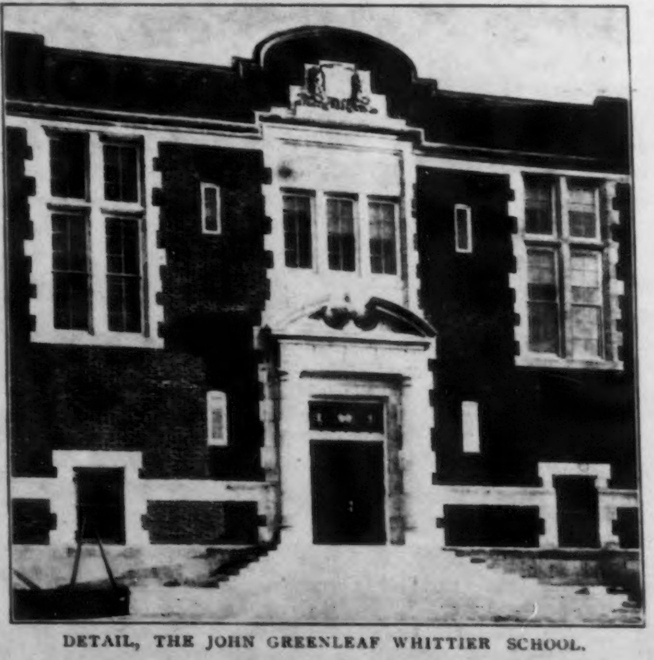
Besides the work of constructing new buildings a great deal of work has been done in repairing the old, principally in repairing and altering the heating and ventilating systems, installing new sanitation, and in the furnishing of more adequate fire protection. The Board conferred with the fire chiefs in this matter before adopting a policy. They feel that the ordinary exits will be most efficient in case of fire, and while they have equipped some twenty-seven schools with outside fire-escapes, they believe it to be saner to do what is possible towards the fireproofing of the walls and floors enclosing the heating apparatus, and so reducing to a minimum the danger of a fire getting started.

In the year 1903-1904, nearly $250,000 was expended for new sanitation in the older buildings, and last year, for such sanitation and heating repairs, about $125,000 was expended.

THE CHRISTOPHER COLUMBUS SCHOOL.

This was the first primary school built after the Board had formulated its first guide to economy of planning; that is, that a total floor area should be not greater than twice the area of the schoolrooms on that floor. The guide for cubical contents had not at that time been settled.

Its plan is conventional in scheme, the central corridor, with stairs at either end modified in detail to fit the special conditions of a restricted lot. It is built out to the lot line on North Bennet Street, as it faces a playground on that side, thus allowing an open garden space to assist the lighting on the narrower Tileston Street. The existing Eliot School occupies the end of the lot, leaving no room for adequate playgrounds. If the roof playgrounds installed in the Washington School prove successful, it will be possible at any time to equip this school in a similar manner. A number of the classrooms are below standard size, as, in this neighborhood, many of the children are foreigners, and are put in ungraded classes of from thirty-five to forty, instead of the usual fifty.



DETAIL, THE JOHN GREENLEAF WHITTIER SCHOOL.

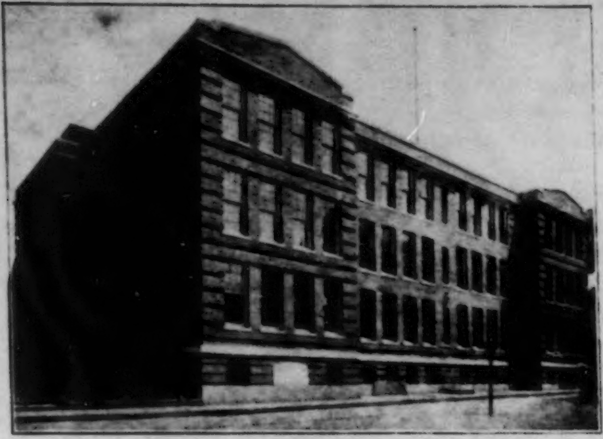
The heating is by the gravity system, and is of sufficient capacity to heat the Eliot School as well, a fourteen-room building. This added somewhat to the cost, which is considerably above the low limit which should apply to a twenty-four room building. It is about midway between the two limits set for primary schools.

The building has proved satisfactory, the master finding nothing to criticise, and it fills all the requirements of the Board.

THE SARAH J. BAKER SCHOOL.

THE SARAH J. BAKER SCHOOL.
(Illustrated on Plate 24 of this issue.)
Primary, Lewis District, Perrin Street.
J. A. Schweinfurth and John J. Craig, Architects.
24 rooms: 1,200 pupils.
Cube, 708,607 (720,000). Cost cubic foot, $0.2217 ($0.22).
Cost, $157,161 93 ($158,400). Cost per pupil, $131 ($132).
(Figures in parentheses are limits set by the Board).

This school was contracted for in March, 1905, about two years after the Christopher Columbus. Their requirements are identical. In plan it is quite different, being practically two four-room floor plans, back to back, each with its set of staircases and entrances, with emergency doors in the dividing wall. It is located in a residence district with plenty of trees, and no high buildings, or the immediate likelihood of them, to obstruct light. The lot is large enough for small playgrounds, a girls' and a boys' yard at each end serving independently the two parts of the building. In the basement the toilets



THE CHRISTOPHER COLUMBUS SCHOOL.
Primary, Eliot and Hancock District, North Bennet Street.
Winslow & Bigelow, Architects.
24 rooms: 1,200 pupils.
Cube, 727,068 (720,000). Cost cubic foot, $0.236 ($0.22)
Cost, $173,512.08 ($158,400). Cost per pupil, $144.50 ($132.00).
(Figures in parentheses are limits set by the Board.)

are similarly separated, and there is as well a large common playroom and a smaller separate one for girls.

The heating system is a combination pump and gravity return system, with plenum fan for ventilation, like that installed in the Mather School. The main ducts, for the distribution of air to the lower ends of the various vertical ducts, are of masonry, below the basement floor, instead of galvanized iron on the basement ceiling as in previously constructed schools. The ducts are large enough for a man to walk in, and so give free access to the bottoms of all uptakes, allowing of ready cleaning, and substituting for the more or less perishable metalwork a permanent construction.

The area and cube are well below the standard, doubtless due to the economy of hall area in this scheme of plan. The cost per cubic foot is slightly in excess of the standard, but the total cost is still within the limit.

This school, built under a single contract, with bonus and forfeiture clause, has just been completed, well within its contract time, sustaining the claim of the Board that delays in completion will be obviated by this method of procedure. Of the other schools, for various reasons, very few have been built in this way, and in almost every case delays, sometimes serious, have occurred.

The single contract and time limit tend to increase slightly the cost, but assurance that a school will be ready for occupancy on time is a legitimate purchase.

THE TUCKERMAN SCHOOL.

A long and narrow lot has developed for this school a plan analogous to that of the Baker School, in that it has a three-room plan and a two-room plan, end to end, with emergency doors in the dividing wall. The two parts are entered from the ends of a narrow terrace raised some few steps above the sidewalk. The play yards are at either end of the lot, with the service drive entering at the rear between the two wings. There is one common playroom in the basement. As in all the other schools, the construction is fireproof throughout.

THE JOHN GREENLEAF WHITTIER SCHOOL.
(Illustrated on Plate 24 of this issue.)
Primary, Henry L. Pierce District, Southern Avenue.
Parker & Thomas, Architects.
10 rooms: 500 pupils.
Cube, 325,051 (350,000). Cost cubic foot, $0.22 ($0.22).
Cost, $72,269.70 ($77,000). Cost per pupil, $144.54 ($154).
(Figures in parentheses are limits set by the Board.)

DETAIL, THE CHRISTOPHER COLUMBUS SCHOOL.

THE JOHN GREENLEAF WHITTIER SCHOOL.

This and the Tuckerman School are the two latest and the two smallest primary schools built by the Board. It has been generally more difficult to build the smaller schools within standard limits than the larger, and it is a significant fact that of these two latest schools, both are well below the standard in cube, and that one is but $65.90 above the standard limit of $77,000, while the other is $4,731 or six per cent below it.

The Whittier School is on an ample lot, with a cemetery at the rear assuring unrestricted south light for the rooms on that side. The other rooms open off the ends of the corridor, with its two stairways and storerooms. The basement, as usual in a primary school, has merely the heating and toilet arrangements and playrooms opening on to the play yards at either end of the building.

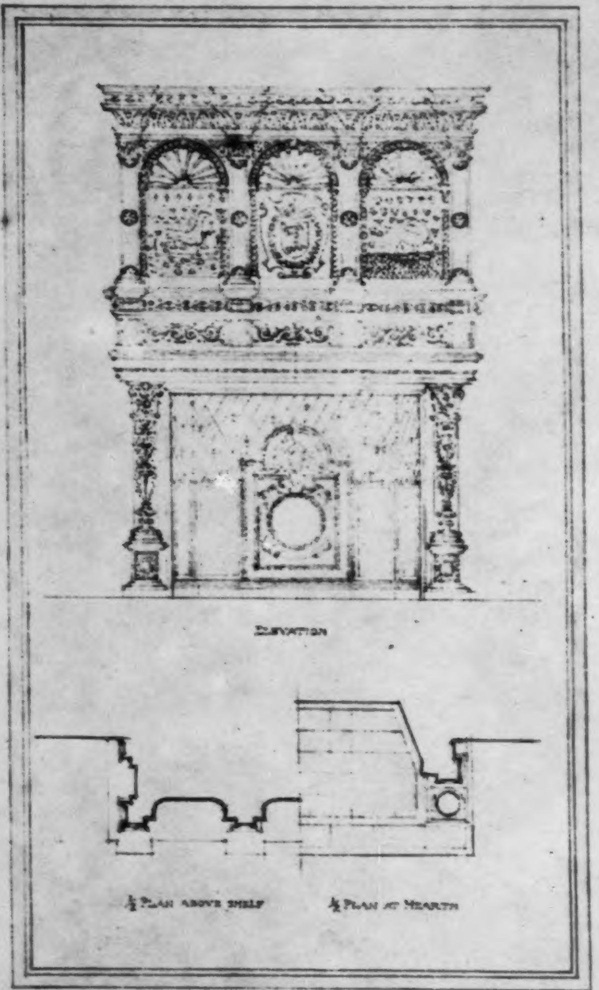
(Concluded.)

Architectural Faience Competition B.

REPORT.

Prize Design. In placing this design first it was felt that the whole design was very agreeable in proportion and balance, and that the detail was kept in good scale throughout.

The outline of the cartouche in the central panel might be somewhat improved. The color, if well handled, would add greatly to the beauty of the design; and it is one which lends itself peculiarly to the use of color, and also very suitably to the material.



PRIZE DESIGN.
SUBMITTED BY MAURICE P. MEADE, BOSTON.

First Mention has most of the merits of the prize design, but the lower supports seem unduly heavy, and the proportions not quite as agreeable as in the other design. The color is well handled, and the drawing good.

Second Mention is a design of an entirely different type from any of the others, and as such deserves special mention. It would of course be very suitable to an informal room, and suggests the clubhouse mentioned in the programme. The figures are somewhat large, and would have to be in very low relief not to overpower the design; but as the columns project considerably there might be some difficulty between the capital and the figures.

This design shows great cleverness, is an extremely interesting drawing, and the color is well handled.

Third Mention is a very good drawing, and is very pleasing in proportions; but the detail is not as interesting as the general disposition.

Fourth Mention is beautiful in color and execution, but the top part of the design seems to crush the supports. This could have been obviated had the opening been made considerably higher.

Fifth Mention is a well composed design, and the drawing extremely painstaking, but it would be more interesting if not executed with the same care and patience over its entire surface. The double frieze seems rather too heavy for the rest of the composition.

Sixth Mention is quite different from any of the others in type, and as such deserves mention; especially as it lends itself extremely well to execution in faience.

Henry Forbes Bigelow.

PROGRAMME.

Subject: A Large Mantel with Hood.

ONE CASH PRIZE ONLY. FIFTY DOLLARS FOR BEST DESIGN.
ALSO MENTIONS.

At the end of a large hall, such as would occur in a clubhouse or in the main lobby or dining-room of a hotel, it is desired to place a large mantel with a hood, similar in style to that of the period of Francis I of France. This mantel should be designed to be executed in architectural faience in one or more colors.

The color scheme may be indicated by a key.

The mantel is to occupy a wall space of not more than 150 square feet.

Drawings required. Plan and elevation at a scale of one-half inch to the foot.

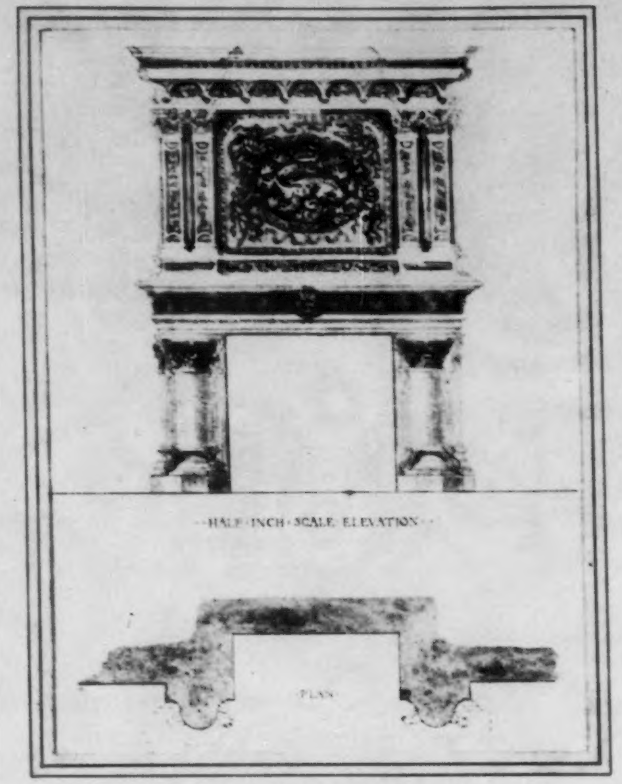
Drawings may be rendered at will on a sheet of unmounted white paper, measuring 16 inches by 20 inches.

Each drawing is to be signed by a *nom de plume* or device, and accompanying same is to be a sealed envelope with a *nom de plume* on the exterior and containing the true name and address of the contestant.

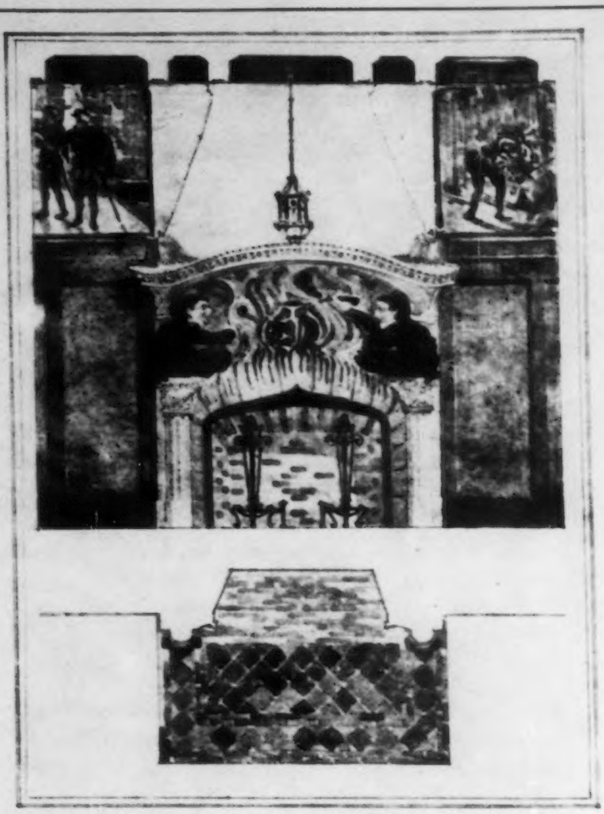
FOURTH COMPETITION ALUMNI FELLOWSHIP IN ARCHITECTURE, UNIVERSITY OF PENNSYLVANIA.

THE Trustees of the University of Pennsylvania announce the fourth competition for the Alumni Fellowship in Architecture. This Fellowship, of the value of one thousand dollars, was established in 1903 for annual award during a term of five years in recognition of the action of the General Architectural Alumni Society in securing by general subscription among its members, for the needs of the School of Architecture, a fund of five thousand dollars.

All persons under thirty years of age, who have taken at the University of Pennsylvania either the degree of B. S. or M. S. in Architecture or the certificate of the two-year special course in architecture, are eligible to the Fellowship, save only such as may have already secured opportunities for foreign travel and study equivalent to those conferred by this Fellowship. The holder of the Fellowship is expected to sail for Europe not later than September 1, 1906, where he will be required to spend not less than one year in travel and study.

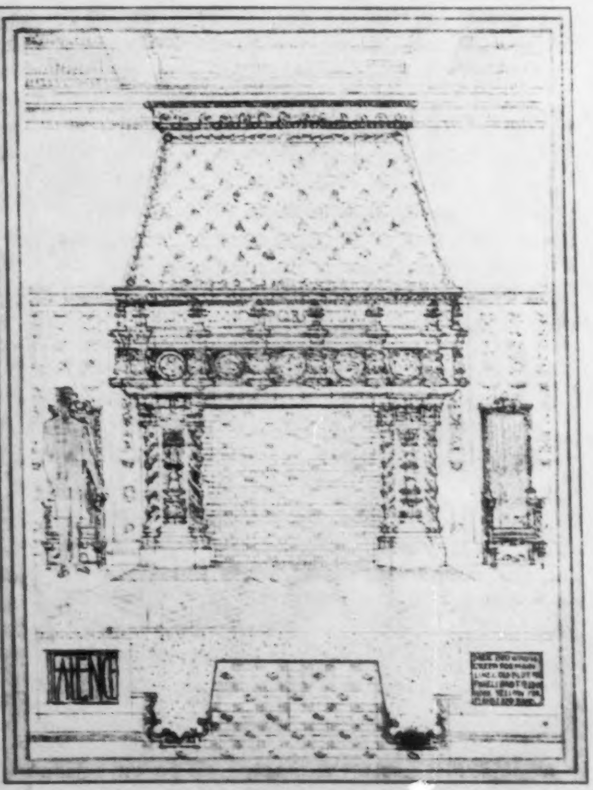


FIRST MENTION.
SUBMITTED BY ROBERT FULLER JACKSON, BOSTON.

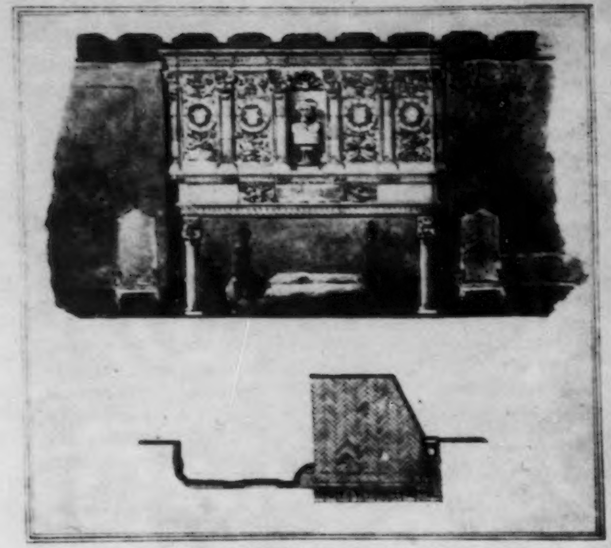


SECOND MENTION.
SUBMITTED BY JOSEPH W. WILSON, CHICAGO.

THIRD MENTION.
SUBMITTED BY HOMER KIESSLING, ROSLINDALE, MASS.

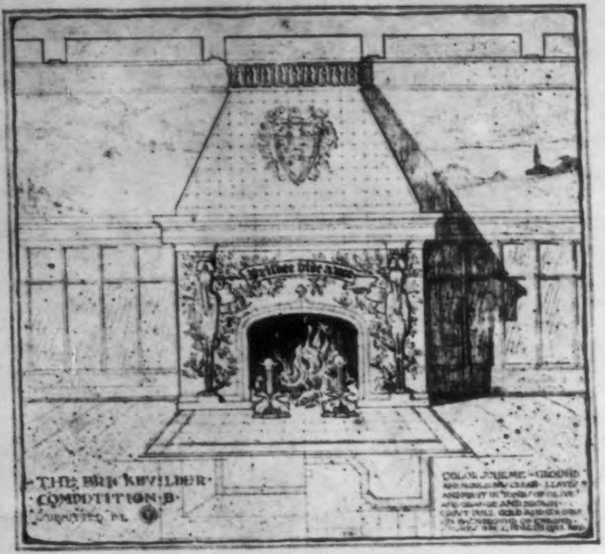


FIFTH MENTION.
SUBMITTED BY CALVIN KIESSLING, BOSTON.



FOURTH MENTION.

SUBMITTED BY JOHN J. CRAIG, BOSTON.



SIXTH MENTION.

SUBMITTED BY ARTHUR HOWELL KNOX, CHICAGO.

CONVENTION OF THE ARCHITECTURAL LEAGUE OF AMERICA.

THE Seventh Annual Convention of the Architectural League of America was held in New York City January 31, February 1 and 2. That the interest in the League is wide and that its effort is earnest may be realized in noting the personnel of the convention. The delegates included architects, draughtsmen, university teachers and their senior students in architecture, and painters and sculptors of national reputation. The purposes of the League became clear to the onlooker who heard the discussions of the three days' business session and listened to the reports of the standing committees.

One evening during the convention, according to custom, was open to the general public. Prof. A. D. F. Hamlin, head of the Architectural School of Columbia University, gave an interesting address on "The Relation of Decorative Sculpture and Painting to Architecture." The subject was treated in an historical way and was illustrated with lantern slides. Mr. Hugh M. G. Garden, of Chicago, followed with a paper on "Architectural Styles and American Life."

The National Sculpture Society acted as host to the delegates on the first day, and conducted them on an automobile tour around the city, visiting notable architectural works, and ending with a luncheon in the Borough of Richmond, in sight of the beginnings of Staten Island's great Municipal Ferry Terminal, and where they were welcomed by President Cromwell, who told of future plans for his borough.

For the second day of the convention the National Society of Mural Painters acted as host and entertained the delegates at luncheon, after which they were conducted on a tour through the interiors of several of New York's finest buildings. This permitted them to meet Mr. John La Farge, who gave an informal explanatory talk beneath his great painting, "The Ascension." A view was also had of Mr. Robert Blum's mural decorations in Mendelssohn Hall, the interior of the new Parkhurst Church, the new Appellate Court Building, the interior of the St. Regis Hotel, the apartments of Mr. Louis Tiffany, and C. Y. Turner's new paintings for the De Witt Clinton High School.

On the third day the delegates were guests of the Architectural League of New York, and the convention ended with the annual dinner, which at the same time marked the opening of the New York League Exhibition. President Richard H. Hunt, of the Architectural League of New York, presided at the banquet, and speeches were made by the newly elected president of the Architectural League of America, Mr. Ernest J. Russell of St. Louis, Mr. George B. Post, Mr. E. H. Blashfield, Mr. Karl Bitter, Mr. Calvin Tompkins, president of the Municipal Art Society, Mr. Frank Miles Day, president of the American Institute of Architects, Sir Caspar Purdon Clarke, F. Hopkinson Smith and others.

The work of the League for the past year is well presented in the following report submitted by the Executive Board:

REPORT OF THE EXECUTIVE BOARD.

Your Executive Board respectfully submits the following report:

As provided by the Constitution of the League, your president, representing the Chicago Architectural Club, selected the following gentlemen from that club to act with him: Mr. Richard E. Schmidt, V.-Pres.; Mr. John L. Hamilton, Sec.; Mr. Herman V. von Holst, Treas.; Mr. Alfred Hoyt Granger, Mr. Howard V. D. Shaw, Mr. Elmer C. Jensen, who, together with your president, N. Max Dunning, have constituted the Executive Board.

The meetings of this Board have been held approximately every two weeks, at which time questions of routine business have been taken up and disposed of.

The Executive Board has been particularly fortunate this year in having had its line of action largely mapped out for it by the convention

in Pittsburg and has bent its efforts toward putting into active operation the projects recommended by the retiring Board, and by the Standing Committees in their reports to that convention.

We have succeeded in a measure, and I am pleased to report the following results:

School Scholarships.— In our effort to establish scholarships in the architectural schools of the country, we met with a most generous response from the President and Fellows of Harvard University, receiving from them by gift three "scholarships in architecture," each equivalent to one year's free tuition at Harvard. Two of these scholarships are awarded upon the result of a competition in design conducted and judged under the auspices of the League, in the various constituent clubs and open to any of their members. The third scholarship is awarded to that member of the League who passes the highest regular entrance-examination. The first competition for these scholarships was held simultaneously in all of the clubs last September and two scholarships were awarded. The men receiving these scholarships are at present pursuing their studies in Harvard. While there were but few competitors, this fact was easily attributable to the short notice that could be given and it would be an unfair criterion by which to judge of the success of the scholarship idea. Announcements have been issued for the second competition, which will be held early in March and upon the results of which the scholarships for next year will be awarded. It is only due to the President and Fellows of Harvard and to Prof. Warren, who has so earnestly championed our cause, that a large number should compete and show that we are deeply sensible of the great assistance they have given us in carrying out our programme of education.

While we have not as yet received scholarships from other architectural schools, the manner in which they have taken up the question and the interest shown in its possibilities lead us to expect that eventually we will have other scholarships to offer to our members.

Traveling Scholarship.— We have also secured pledges of the funds necessary for establishing an "Architectural League of America Traveling Scholarship" of a value of $1,200. A part of these funds are already in the League treasury and we anticipate no delay in receiving the remainder. Announcement of this competition has already been sent out, and the programme has been written, but this will not be made public until the time of the preliminary competition.

It has been the intent of the Executive Board to make the restrictions as to eligibility as broad as can be made, consistent with the best interests of the scholarship and its recipient.

We will require from all competitors an essay in which they will set forth their opinion as to what is the function of such a scholarship as this, and what, if any, are their natural predilections, with the intention that their designated study may be made congenial to their tastes and impose the least possible restriction on the individuality of their work.

We will require that the holder of the first scholarship observe particularly some designated subject pertaining to the improvement of cities, and report to the Executive Board.

Your Executive Board has given this question of a Foreign Traveling Scholarship deep consideration, and are greatly impressed with its future possibilities and inestimable value. We therefore respectfully recommend that this project be continued and developed. We would further recommend that, at the earliest moment it may be found expedient, the League establish Traveling Scholarships in Mural Painting and in Sculpture.

The Annual.— A contract has been signed with Mr. John C. Baker, of Philadelphia, to assume the management of *The Architectural Annual*, and this work will be carried to completion without the League assuming any financial responsibility whatever.

We have every reasonable assurance that *The Architectural Annual* will not only be a volume which will be a credit to the Architectural League of America, as a *resume* of the current work in Architecture, Painting and Sculpture, but that it will also maintain the Foreign Traveling Scholarship in Architecture and probably, in the near future, in alternate years, scholarships in sculpture and mural painting.

The Executive Board have had published the document issued by the Committee on Education and have also had published and distributed in pamphlet form the Report of the Committee on Civic Improvement, as authorized by the last convention.

Your Executive Board recommends:

That the question of periodical bulletins be considered. These to set forth the prospective work the League has in mind, in order that it may be incorporated in the programmes of the various clubs.

That archives for the preservation of club documents should be established.

That a Committee on Foreign Correspondence be made a standing committee. Their duty to bring about a closer harmony between our organization and foreign similar organizations, to the end that our traveling scholars shall be given a better standing and increased opportunities while abroad, and the international question of better government as expressed in concrete examples of civic improvement may be more universally studied and the knowledge more systematically disseminated.

That the Architectural League of America appoint a delegate who is thoroughly familiar with the League's work and ideals to attend and represent it at the World's Congress of Architects to be held in London in July. Our position as an architectural body and our interest in the progress of architectural thought seem to demand that this be done.

Finally, it is the opinion of your Executive Board that, considering the personnel of our society, the sphere of its greatest usefulness is an educational one in the broadest sense. That we must use our good offices to encourage in the minds of the younger members of our organization high ideals of architectural expression and professional practice.

And that we shall exert in the greatest degree possible a strong influence in molding the public mind to a better appreciation of art.

INTERNATIONAL CONGRESS OF ARCHITECTS.

THE Seventh International Congress of Architects will be held in London, July 16-21. This will be the first session ever held in an English-speaking country. It is the desire of the American Section that the next Congress may be held in America.

For the information of those not familiar with the work of the Congress the American Section of the Permanent Committee begs to state that this is the only organization of its kind in the world.

The sessions are held every three years, and in the interim the work is in charge of a Permanent Committee now composed of architects representing seventeen different countries. This committee directs the policy of the organization, selects the character of subjects to be discussed, and considers whatever matters may be brought before it.

The members of the American Section of the Permanent Committee are: W. L. B. Jenney, Chairman; William S. Eames, Vice-President; Francis R. Allen, Glenn Brown; George O. Totten, Jr., Secretary.

An International Congress of Architects affords an opportunity of visiting a foreign country under particularly favorable circumstances, of meeting men of one's own profession of different nationalities, of great personal benefit derived from the discussions and debates of the Congress and the elevation of the profession and the public in general in matters of art.

Any architect in good standing may become a member on payment of the subscription. National Architectural Societies and the individual chapters comprising them, as well as local architectural clubs, may have the privilege of appointing delegates upon payment of the subscription to the Congress.

As there is already a very general interest shown in the Congress by American architects, it may be possible to arrange several parties which will add to the pleasure of the trip, to sail on different dates. If those desiring to join such parties will send their names as soon as possible to George O. Totten, Jr., 808 Seventeenth Street, Washington, D. C., Secretary of Permanent Committee, or to Glenn Brown, Sec. A. I. A., Washington, D. C., sailing lists and other information will be sent.

Editorial Comment and Selected Miscellany

REINFORCED CONCRETE CONSTRUCTION.

EDITOR THE BRICKBUILDER:

In the January issue of *New York Manufacturer* appears an article professing to be an abstract of a speech delivered by Mr. E. N. Hunting of Pittsburg, on reinforced concrete, in which the following gems occur, bringing to mind an editorial in *Cement Age* of May last:

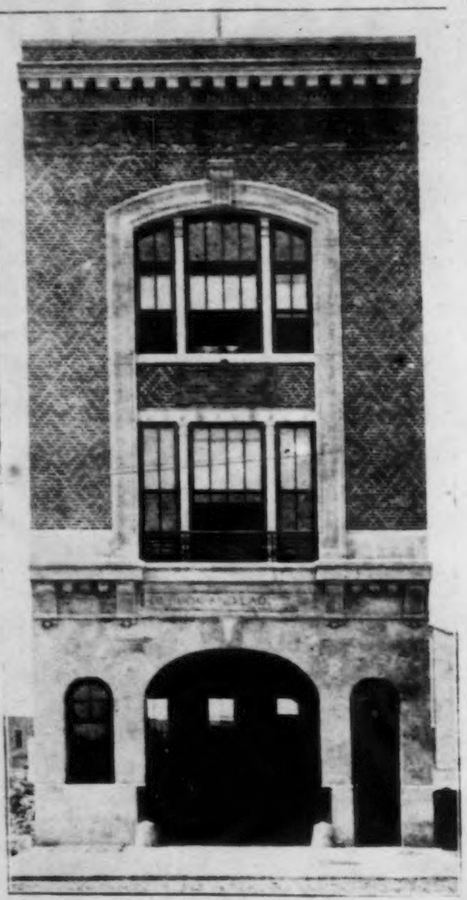
> "The cause of reinforced concrete construction would seem to be in danger of being damned, not by faint praise, but by too much praise. Some warm admirers of this system of construction have rushed into print with articles attributing to concrete every virtue which it is possible for a building material to possess. They have gone so far that one may question whether their motives have always been disinterested."

Mr. Hunting, after informing his audience (the American Society of Mechanical Engineers) that concrete is a mixture of sand, stone, cement and water which can be obtained everywhere locally, goes on to say:

> "The mixtures of the aggregates can be made by very efficient mechanical devices — or by *the use of the most ignorant class of labor — with the same good result.*
>
> "Forces of nature, no matter how severe, have but little effect on concrete; neither do acid fumes and high temperatures affect it.
>
> "Although winter construction in concrete is not commonly considered good practice among engineers, we are of the opinion that cold weather is the most advantageous time to handle this class of work, because when temperatures are low the aggregates of concrete are of the smallest volume, and contraction due to temperature stresses is seldom found in work carried out in winter. Cracks seldom develop from expansion — almost entirely from contraction."

DETAIL BY PRICE & MC LANAHAN, ARCHITECTS.

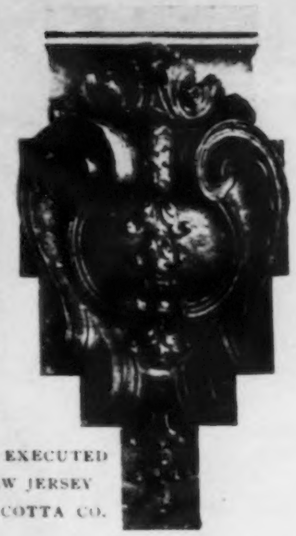
Conkling-Armstrong Terra Cotta Co., Makers.



FIRE DEPARTMENT HOUSE, LONG ISLAND CITY, L. I.

Parish & Schroeder, Architects

I have been a close reader of your publication from its start, have studied numerous works on cement and concrete; lately an exhaustive one by Louis Carlton Sabin, B. S. C. E., and the only conclusion I have been able to reach is that the claim made by Mr. Hunting, that the most ignorant class of labor is competent to mix concrete, is radically wrong. In the numerous cases cited by you of collapsed reinforced concrete construction, many are attributed to just ignorance.



DETAIL EXECUTED BY NEW JERSEY TERRA COTTA CO.

The *Engineering Record* of January, 1904, in an editorial stated: "Concrete-steel has one characteristic that renders imperative the greatest possible care, both in design and construction, viz., the process of manufacture of the material is concurrent with the building of the finished structure. The faults of manufacture manifest themselves only in the weakness or failure of the structure, and this is precisely why so large a number of concrete-steel failures, mostly or all in buildings, have been lately recorded. . . . It is unqualifiedly imperative that the best class of workmanship in every respect should be found in concrete-steel construction."

Sabin states: "The desirable elements in concrete are, first: That when treated in the proposed manner it shall develop a certain strength at the end of a given period: second: That it shall contain no compounds within itself which may, at any future time, cause it to change its form or volume, or lose any of its previously acquired strength; third: That it shall be able to withstand the action of any exterior agency to which it may be subjected that would tend to decrease its strength or change its form or volume. . . . The defects which lie hidden in cement may be even greater than those in lumber and cast iron in proportion to its possible strength, and defects in cement are often more treacherous because their development may be deferred for some time. The importance of knowing whether the cement fulfills the second and third requirements noted above is therefore evident."

COOK COUNTY NORMAL SCHOOL FOR TEACHERS, CHICAGO.
W. B. Mundie, Architect.
Fireproofed by National Fireproofing Company.

To a layman it would seem from the foregoing argument that the most skilled of labor is demanded for concrete construction, and not, as Mr. Hunting asserts, the most ignorant.

A. N. MULLER.

NEW YORK.

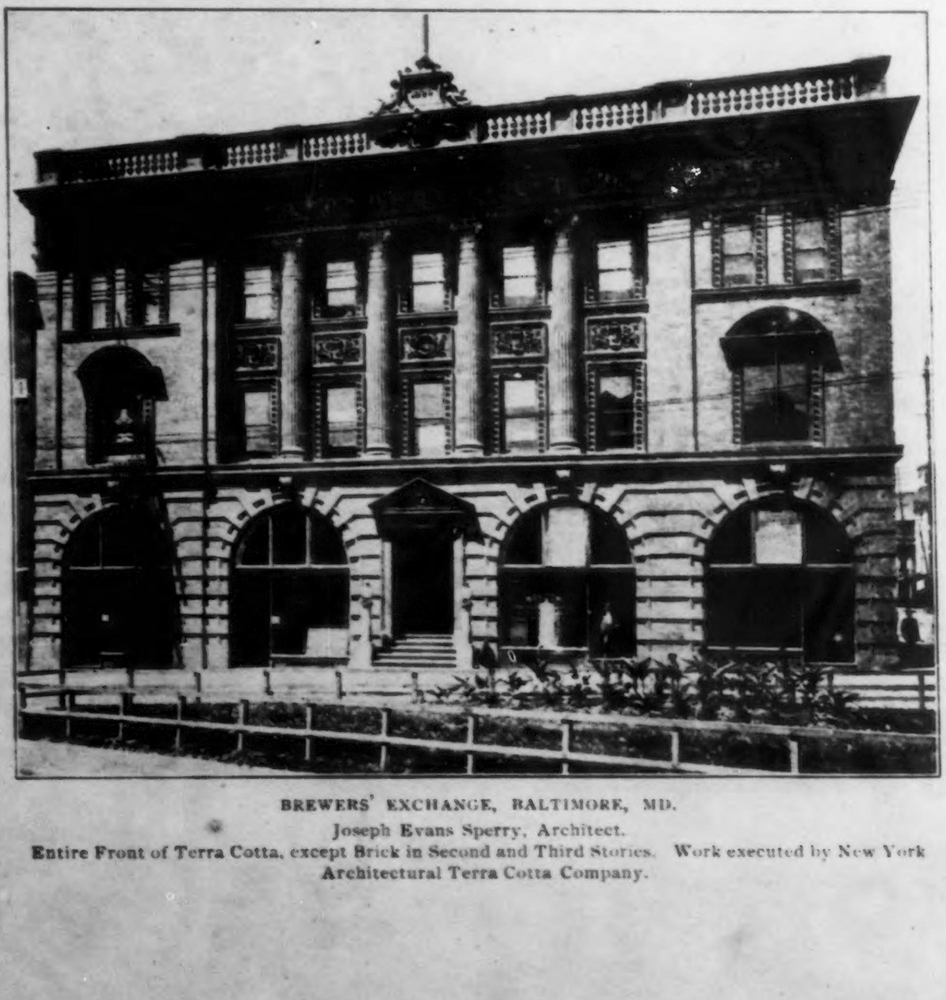
AN INTERESTING EXAMPLE OF BRICKWORK.

THE new Long Island Storage Warehouse at Brooklyn, Helmle & Huberty, architects, illustrated in the plate form of this issue, is a very interesting example of the use of brick pattern-work in large wall surfaces. The centers of the diamond shapes, which form the pattern, are of old gold mottled brick, the outline being in light buff. This combination of colors gives to the wall a warm, mellow tone which contrasts well with the light-colored terra cotta trim of the building. The bricks were furnished by Sayre & Fisher Company of New York, and the architectural terra cotta by the Perth Amboy Terra Cotta Co.

CONSOLIDATION OF ROOFING TILE CONCERNS.

THE Ludowici Roofing Tile Company and the Celadon Roofing Tile Company have merged their interests. The merging corporation will be known as The Ludowici-Celadon Company. The united strength of these two organizations makes a formidable aggregation of assets, plants and salesmen, with immeasurable facilities for the production of clay roofing tiles and equal facilities for marketing its ware.

The maintenance of four large factories—at Chicago Heights, Ill., New Lexington, O., Ludowici, Ga., and Alfred, N. Y.—will prove of vast importance in the rapid distribution of material, and at the same time enable The Ludowici-Celadon Company to meet architects' and engineers' specifications with any quantity of roofing tiles, of any shape, in any color, at any time. Branch offices will be established in all the large cities.



BREWERS' EXCHANGE, BALTIMORE, MD.
Joseph Evans Sperry, Architect.
Entire Front of Terra Cotta, except Brick in Second and Third Stories. Work executed by New York Architectural Terra Cotta Company.

DETAIL OF PETTIBONE-PEABODY COMPANY BUILDING, APPLETON WIS.
H. H. Waterman, Architect.
Executed in White Enamel Terra Cotta by American Terra Cotta and Ceramic Company.

DETAIL BY ALEXANDER MACKINTOSH, ARCHITECT.
Excelsior Terra Cotta Company, Makers.

IN GENERAL

George G. Teeter, architect, Winnipeg, Man., has taken offices at 536½ Main Street, that city. Manufacturers' catalogues and samples solicited.

DETAIL BY FISHER & LAURIE, ARCHITECTS.
St. Louis Terra Cotta Company, Makers.

Peter Brust and Richard Philipp, have associated themselves under the firm name of Brust & Philipp, for the general practice of architecture. Offices, 82 Wisconsin Street, Milwaukee.

Oliver J. Popp, architect, St Louis, Mo.; has removed his office to 4976A Reber Place.

A. O. Hoddick, architect, New York City, has removed his office to 29 West 34th St.

The Ludowici-Celadon Company have just completed a full-glazed green Spanish tile roof for the Carnegie Technical School at Pittsburg, Pa., Palmer & Hornbostel, architects. They will also supply their Conosera tile for the house and stable of E. B. Corey, Esq., Far Rockaway; their French A tile for Public School No. 19 at Yonkers, C. C. Shipman, architect, and College Library at Huron, S. D., Patton & Miller, architects; their flat shingle tile for the new Lutheran Church at Dayton, Ohio, Peters, Burns & Pretzinger, architects.

The Grueby Faience Company are supplying for the City College buildings, New York, George B Post & Son, architects, a dull finish green tile dado. There are eleven thousand running feet of this work, which is six feet high, made up of tiles 4½ inches by 9 inches, with base and cap.

The new garage at Baltimore, of which Beecher, Friz & Gregg are architects, will be roofed with a green unglazed Spanish tile furnished by Bennett's Roofing Tile Works, Baltimore. This building, which is unusually interesting, will, when completed, be published in THE BRICKBUILDER.

The South Amboy Terra Cotta Company will supply their terra cotta for the following buildings, St. Mary's

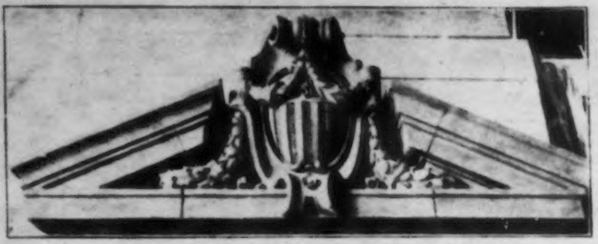
BLOW SCHOOL, ST. LOUIS, MO.
W. B. Ittner, Architect.
Roofed with American S Tile, made by Cincinnati Roofing Tile and Terra Cotta Co.

School, Wilkesbarre, Pa., Owen McGlynn, architect; addition to Powell Building, New York City, Henri Fouchaux, architect; Mt. Carmel Rectory, Astoria, L. I., John E. Kirby, architect; thirty-two apartment houses, corners of Willoughby and Wychoff streets, Brooklyn, N. Y., Robert T. Rasmussen, architect.

DETAIL BY C. B. J. SNYDER, ARCHITECT.
Atlantic Terra Cotta Co., Makers

Architects W.T. Bray and Carl E. Nystrom have consolidated their business interests and are now located in the offices of the former, 610 Paladio Building, Duluth, Minn.

Joseph H. Casey, architect, has opened an office at Anderson, S.C. Manufacturers' catalogs and samples solicited.



DETAIL EXECUTED BY NORTHWESTERN TERRA COTTA CO.

WANTED — Four Architectural Draughtsmen of experience. Steady positions. State salary wanted. Rubush & Hunter, Architects, Indianapolis, Ind.

WANTED — Two good Draughtsmen, one for general working drawings, the other for preliminary work, including perspective rendering. R. H. Hunt, Architect, Chattanooga, Tenn.

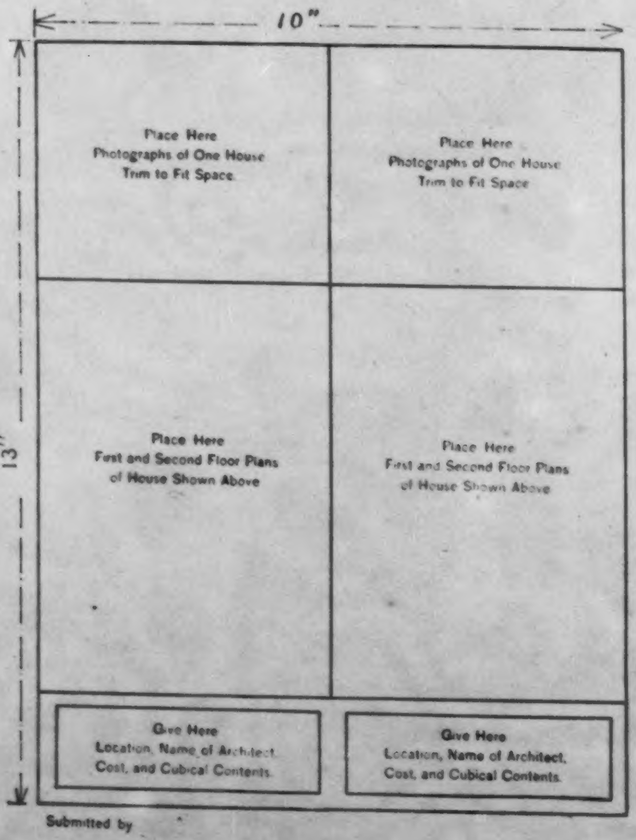
WANTED — Two good draughtsmen; salaries $80 to $150 per month to the right men. In answering give age, training and experience. Pittsburg, care "The Brickbuilder."

WANTED — Position with an architect. West preferred. Have been used to general office work; specifications, designing, detailing, structural steel and superintendence. Twenty years' experience. Five years in government service. Address Washington, care "The Brickbuilder."

WANTED — By an Architect, with a well-established practice in the East, an exceptionally proficient young man, a student of the Beaux Arts and since in practical work in an office of good reputation, to become associated and given an interest in the business. Address, with particulars, R. E. W., care of "The Brickbuilder."

Competition for Photographs and Plans of Two Small Brick Houses.

FIRST PRIZE, $100.00; SECOND PRIZE, $50.00; THIRD PRIZE, $25.00;
FOURTH PRIZE, $15.00; FIFTH PRIZE, $10.00.



Competition closes June 1, 1906.

PROGRAM.

The object of the Competition is to obtain a collection of photographs and plans of well designed, well planned houses which have been built of brick at a cost ranging from $3,000 to $7,000 each.

The best in design and plan for the cost, whether this be $3,000 or $7,000, will be given the prizes.

The houses must be detached, and built entirely of brick, except the trim, such as porches and cornices, may be of other materials.

SPECIFIC REQUIREMENTS. On a piece of heavy cardboard measuring exactly 12 x 15 inches, inside border lines drawn 1 inch from edge of cardboard, shall be mounted (at the top of card) in spaces measuring 4 x 5 inches each, one photograph each of two houses.

These photographs should be mounted (pasted on) with care and trimmed to actual size of the spaces.

Below these photographs, in spaces measuring 5 x 7 inches each, shall be drawn or mounted the first and second floor plans of each house.

In the panels below these spaces shall be clearly printed the location (city or town and state), the names of the architects, total cost of each house, and cubical contents.

Below these panels should be given the *nom de plume* of the contestant, consisting of only one word.

The accompanying diagram indicates exactly the manner in which subjects should be presented.

These sheets are to be delivered at the office of THE BRICKBUILDER, 85 Water Street, Boston, Mass., charges prepaid, on or before June 1, 1906. They should be carefully packaged to prevent damage in transit. Accompanying each sheet is to be a sealed envelope with a *nom de plume* on the exterior and containing the true name and address of the contestant.

The Competition will be judged by two well-known architects.

Competition open to every one.

The groups awarded prizes are to become the property of THE BRICKBUILDER, and the right is reserved to publish or exhibit any or all of the others.